1014

HAND SIGNS FOR TECHNICAL TERMS USED IN THEMATIC AND TOPOGRAPHIC MAPPING

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Hand Signs for Technical Terms Used in Thematic and Topographic Mapping

By RICHARD W. WILL and
WILLIAM E. KROHN

Sign-language terms used to communicate technical mapping terms between hearing and hearing-impaired people

U.S. GEOLOGICAL SURVEY CIRCULAR 1014

DEPARTMENT OF THE INTERIOR
MANUEL LUJAN, JR., Secretary

U.S. GEOLOGICAL SURVEY
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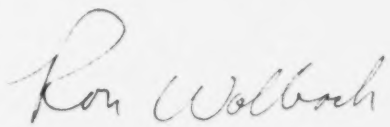
FOREWORD

Several people had critical roles in the development of this book. Richard W. Will, Cartographer, envisioned the need for a sign language manual for the mapping signs that were in use within the National Mapping Division, U.S. Geological Survey. Mr. Will collected the mapping signs and developed the manual format. He was the artist for the drawings that illustrate all the included signs and the manual cover, and he authored this manuscript.

William E. Krohn, Cartographic Technician, who is hearing impaired, assisted in the collection of the mapping signs and helped assure their accuracy. He contributed to the editing and was the model used for most of the illustrations shown in this manual.

Sincere appreciation is extended to the following individuals, many of whom are hearing impaired and who contributed much help on a voluntary basis and on their own time to ensure that this publication is correct. Lu-V-Lee J. Dye, John J. Gracey, Anita E. Halterman, Robert R. Payne, Jim A. Redmond, and Bruce M. Weibe participated in the initial meetings held to collect the common mapping signs and technically reviewed and evaluated the illustrations and sign terms. Mr. Payne also was used as a model for some of the illustrations. All of these individuals are hearing impaired. Rick L. Baca, Eldon R. Hunewell, and Patricia A. Wolfangle, also hearing impaired, edited and evaluated the illustrations and sign terms. Vera Ramer, Dale Myers, and Darlene Ensenat, with the Center on Deafness, Denver, Colorado, gave expertise and reviewed this book. Dr. Frank Caccamise, Senior Research Associate and TSP Project Director, Division of Communications, National Technical Institute for the Deaf, Rochester Institute of Technology, Rochester, New York, gave his expertise in reviewing this manual and made suggestions relating to the collection, documentation, and writing of the descriptions that accompany the illustrations.



Ron Wolbach
Chief, Branch of Cartometric Operations

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Hand Signs for Technical Terms Used in Thematic and Topographic Mapping

By Richard W. Will *and* William E. Krohn

INTRODUCTION

This book is the result of a long-term effort that began in January 1983 to aid in communication between hearing and hearing-impaired employees at the U.S. Geological Survey, National Mapping Division, Denver Federal Center, Denver, Colorado. Many technical signs had evolved in different departments before meetings were held with hearing-impaired employees to collect the signs for mapping terms. About 100 signs were compiled as a result of these meetings.

From this modest beginning, a decision was made to print a pamphlet illustrating these signs for internal distribution to all departments. Various ways to illustrate the many movements were tried and rejected. Outlines were developed and changed several times, until an acceptable format was decided upon. During the next two years, other mapping projects took priority over the development of the sign language pamphlet. In October 1985, interest was regenerated because additional (more than 290) technical signs had evolved within the Thematic Mapping Section. In February 1986, the mapping division management realized the need for creating a formal publication. Permission was obtained and an all-out effort was made to finalize this collection of signs for mapping terms and publish it as a U.S. Geological Survey Circular. In this way, it would be available for use within the government and by the public.

A rough draft of this book was distributed to all Mapping Division hearing-impaired employees for their review and criticism. Controversial signs were discussed and differences of opinion were resolved as best as possible.

This book is not intended to dictate the signs for technical mapping terms. Its purpose is to inform the general readership of a collection of workable signs that has evolved within this government agency. Using it as a model, others may be encouraged to produce similar technical books to enhance communication between hearing and hearing-impaired people. (See the "Bibliography" for a list of sign books and videotapes for technical and specialized vocabulary.)

This collection of technical mapping signs is intended for use by many different people. The primary users will be mapping supervisors, hearing-impaired employees, and their co-workers. Also, teachers, interpreters, hearing-impaired individuals preparing for careers in the mapping field, and people interested in learning how to communicate with the hearing impaired can benefit. Better communication in the work place creates a more positive environment for both hearing and hearing-impaired workers. Hearing-impaired workers can interact more effectively and feel that they are a more integral part of an organization, thereby increasing productivity.

This book assumes that the reader has some experience in using and understanding sign language, thus everyday signs are not included. Many excellent basic sign language books have already been published for this purpose. Therefore, this book is limited to more commonly used mapping signs.

The mapping signs contained in this book are not a complete collection of the technical words necessary for communicating all existing mapping terms. As the mapping profession grows and technology changes, some of the signs may become obsolete or will need to be updated. Many new signs will evolve out of the ever-existing need for people to communicate more efficiently. However, the signs included should provide the reader with an effective vocabulary base for use in the mapping work place.

The reader interested in definitions for these sign terms should refer to a geologic dictionary or a topographic terms manual. Although terms are listed alphabetically, this book is not intended to be a dictionary of mapping terms, even though some terms do have definitions under the heading "Usage". Use of brand names is for descriptive purposes only and does not constitute endorsement by the U.S. Geological Survey.

All the illustrations in this book are drawn for signers whose right hand is dominant. Left-hand-dominant signers need to reverse the hands as shown in the illustrations in this manual.

Movement is shown in these illustrations by indicating two or more hand positions. In figure 1, the dashed hand indicates the initial hand position (A) and the solid hand shows the final position (B). The arrow indicates the direction of movement. In figure 2, the dashed hands and arrow on the left side of the illustration indicate the initial hand position (A) and direction of movement (B) and the dashed hand and solid arrow on the right side of the illustration indicate the final movement and final position of the hand (D).

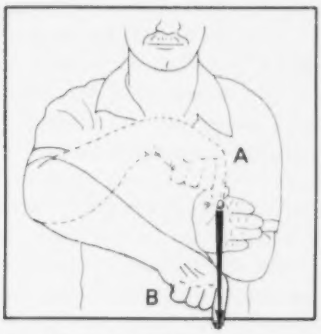


FIGURE 1. Depth (sm)

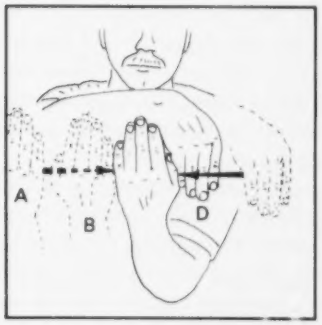


FIGURE 2. Mosaic (dm)

Many of the illustration blocks are divided into upper and lower parts to illustrate compound words and two-word phrases as shown in the following three examples: (1) A compound word is split (for example, ARROWHEAD, fig. 3). ARROW, the first part of the word, is represented by the upper half of the illustration and HEAD is represented by the lower half. (2) Both words of a two-word phrase are illustrated (STRIP FILM, fig. 4). The word STRIP is represented in the upper half of the illustration and FILM in the lower half. (3) One of two words is spelled or abbreviated. Illustration of fingerspelling indicates that spelling or abbreviating is the preferred way of expression (for example JOB FOLDER, fig. 5). J-O-B is fingerspelled in the upper half of the illustration and FOLDER is represented in the lower half. Figure 6 shows how part of two words is abbreviated. ARCHITECT is spelled as the abbreviation A-R-C-H in the upper half of the illustration and SCALE is represented in the lower half. In figure 7, the second half of two words is fingerspelled. HALF is represented in the upper half of the illustration and T-O-N-E is fingerspelled in the lower half.

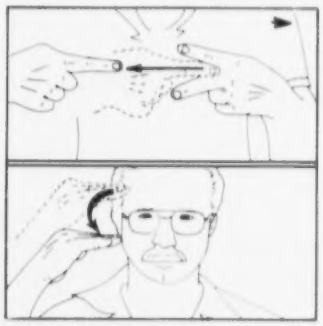


FIGURE 3. Arrowhead (sm, sm)

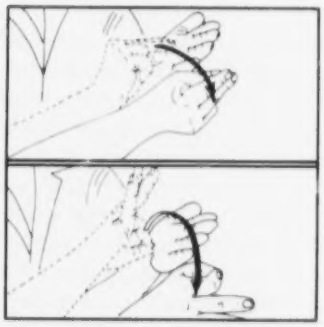


FIGURE 4. Strip film (sm, sm)

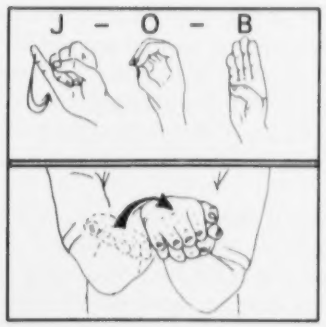


FIGURE 5. Job folder (fs, sm)

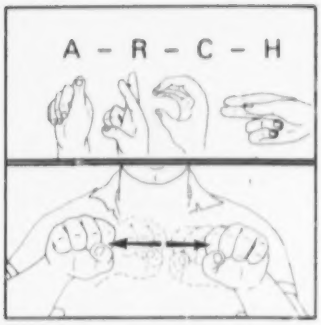


FIGURE 6. Architect's scale (abbr, sm)

FIGURE 7. Half tone (sm, fs)

Other illustration blocks are divided into three parts. (1) One illustration might be given for each of three words (for example, FOR SALE NOTE, fig. 8). FOR is represented in the upper third of the illustration, SALE is represented in the middle third, and NOTE in the lower third. (2) Part of a multipart word is fingerspelled or abbreviated (for example, CARTOGRAPHIC TECHNICIAN, fig. 9). CARTOGRAPHIC is spelled as the abbreviation C-A-R-T-O in the upper third of the illustration, TECHNICAL is represented in the middle third, and the sign for PERSON is added in the lower illustration to change the middle sign from TECHNICAL to TECHNICIAN. Sometimes the third part of the illustration will indicate the spelling of part of the word (RED SCRIBECOAT, fig. 10). RED is represented in the upper third of the illustration, SCRIBE is represented in the middle third, and C-O-A-T is fingerspelled in the lower third.

Several words or abbreviations are fingerspelled (PICA, fig. 11; PLANIMETRIC fig. 12). P-L-A-N-I is an abbreviated form of PLANIMETRIC. Each fingerspelled illustration shows the handshape for the individual letters found in the American Manual Alphabet (fig. 15).

For some geologic terms the actual geologic map symbol, as shown on a geologic map, is drawn in the upper right hand corner of the illustration block (for example, ANTICLINE, fig. 13, or STRIKE AND DIP OF JOINTS, fig. 14).

Most illustrated signs have one or more of the following designations: (sm) single movement—the movement that is illustrated is done only once; (dm)

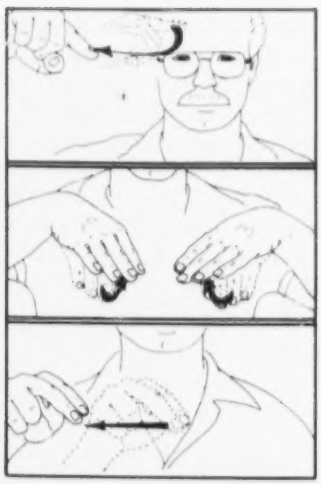


FIGURE 8. For sale note (sm, dm, sm)

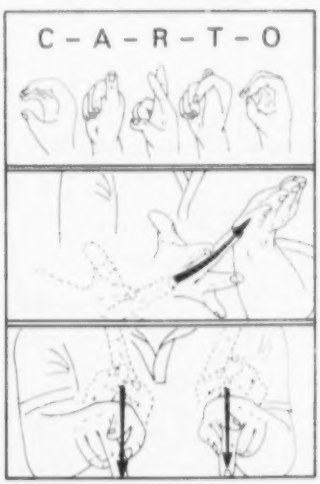


FIGURE 9. Cartographic technician (abbr, sm, sm)

FIGURE 10. Red scribecoat (dm, sm, fs)

FIGURE 11. Pica (fs)

FIGURE 12. Planimetric (abbr)

FIGURE 13. Anticline (sm)

FIGURE 14. Strike and dip of joints (sm)

duplicated movement—the movement that is illustrated is done two or more times; (fs) the term is fingerspelled; (abbr) the term is signed by fingerspelling an abbreviation. A hyphen or exclusion of (sm) or (dm) indicates that the signer may produce the movement one time or more than one time at his or her discretion.

If (sm, dm) or (–, sm) and so forth is used, the first designation applies to the upper half of the illustration and the second designation applies to the lower half. The dash indicates the exclusion of sm or dm. Also, when (sm, dm, abbr) or (–, –, sm) and so forth is used, the first designation applies to the upper third of the illustration, the second designation applies to the middle third, and the third designation applies to the lower third.

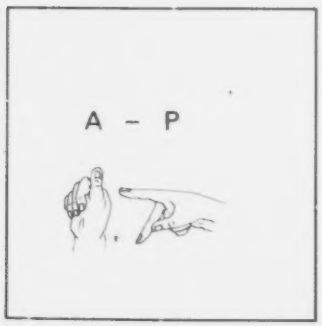
For each of the entries, phrases are includ lustrate the use of the term in a mapping context and written descriptions help clarify the mo shown in the illustrations (Note).

Old barriers are falling and more and m ployers are hiring hearing-impaired persons to fi tial rolls in the mapping profession and in all oth of business. Communication is vital in the worl The mapping profession is continually growi changing, and new challanges must surely be m authors of this book wish to encourage others t out and improve the communication link betwee ing and hearing-impaired persons in the mappi and in all other fields in which they work and

FIGURE 15. Handshapes used in this manual.

ADIT
(sm)

Usage: An adit is a horizontal entrance into a mine.
Note: Place the right index fingertip at the junction of the "V" on the back of the "V" left hand.



ADVANCED PROOF
(abbr)

Usage: Make the correction on the advanced proof; print an advanced proof.
Note: Spell A–P.

AERIAL PHOTOGRAPH
(sm)

Usage: An aerial photograph shows part of the earth's surface.
Note: Place the "ILY" right hand on the back of the "flat O" left hand and move both hands from right to left. At the same time, open and close the left-hand fingertips two or three times (as if exposing a picture from a camera underneath the airplane).

AEROMAGNETIC
(sm)

Usage: Aeromagnetic contours; aeromagnetic map.
Note: Place the "ILY" right hand on the back of the "M" left hand and then move both hands from right to left.

AEROTRIANGULATION
(sm)

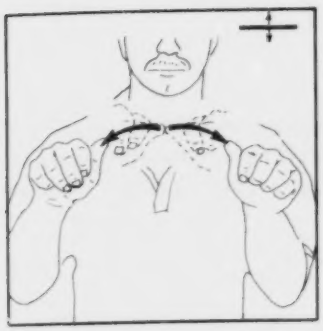
Usage: Plot each aerotriangulation point on the map.
Note: Place the "ILY" right hand on the back of the "T" left hand and move both hands from right to left.

ALIGN
(sm)

Usage: Align the type; align the figures.
Note: Lower the "B thumb-in" right hand from the wrist to about four inches above the back of the "B thumb-in" left hand.

ANGLE
(sm)

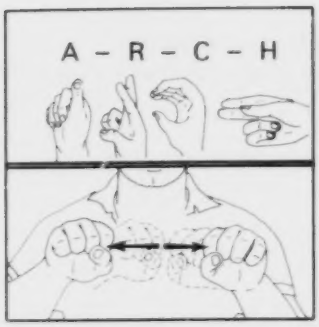
Usage: A 60 degree angle; a right angle. The number 60 is used only as an example.
Note: With the right index fingertip, draw an angle downward under the "flat C" left fingers to the left thumbtip.



ANTICLINE (fold)
(sm)

Usage: An anticline dips down in both directions from the axial plane; scribe the anticline .010"; the Morris Rocks anticline.
Note: Draw the "A" hand thumbtips apart moving sideways in downward arcs.

Approximate contact, fault, fold, *see* **DASH, LONG**

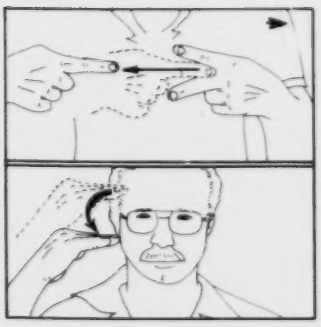


ARCHITECT'S SCALE
(abbr, sm)

Usage: To scale feet or inches, use an architect's scale.
Note: Spell the abbreviation A–R–C–H, then draw both "S" hands apart sideways.

ARROW
(sm)

Usage: Arrow showing the dip of a fault; arrow indicating direction.
Note: Draw the right index fingertip away from the junction of the "V" fingers of the "V" left hand.



ARROWHEAD
(sm, sm)

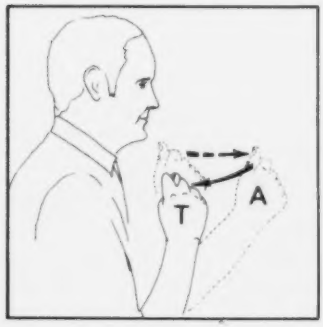
Usage: Scribe the arrowhead; use a small arrowhead.
Note: Draw the right index fingertip away from the junction of the "V" fingers of the "V" left hand, touch the "bent B" right-hand fingertips to the right temple, then drop the fingertips to the cheek.

AUTHOR
(sm, sm)

Usage: The map author; the book author.
Note: Touch the thumbtip of the "A" right hand to the left shoulder then, moving outward and downward, place the little finger of the right hand on the thumb of the "A" left hand. Next, sign person, dropping both "P" hands downward.

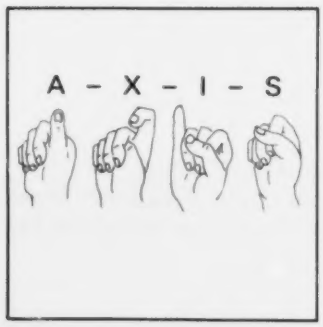
AUTOPOSITIVE
(dm, sm)

Usage: An autopositive is a positive plate made from a positive.
Note: Move both "flat O" hands in an up and down movement, then form a plus sign by crossing both index fingers.



AWAY/ TOWARDS
(sm)

Usage: A/T indicates fault movement away from or towards yourself in a cross section.
Note: Push the "A" right hand outward away from yourself, then change it to a "T" hand and pull it back toward yourself.



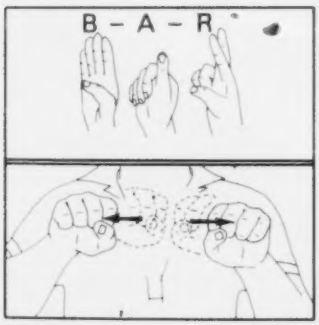
AXIS
(fs)

Usage: Fold axis; axis of an anticline.
Note: Spell A-X-I-S.

BAR AND BALL

(sm)

Usage: A bar and ball on a fault indicates downthrown side.
Note: Touch the right index fingertip to the side of the "O" left-hand thumb.



BAR SCALE

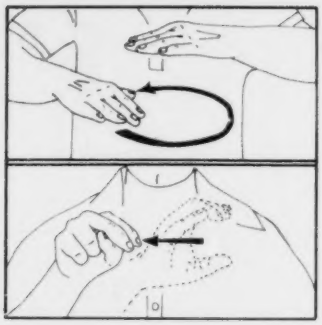
(fs, sm)

Usage: Place a bar scale at the bottom of the topographic base.
Note: Spell B-A-R, then draw both "S" hands apart sideways.

BASE

(sm)

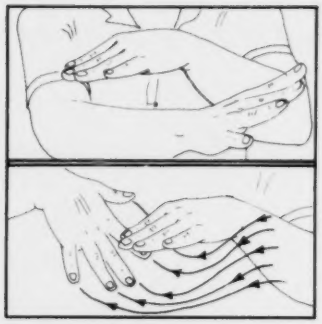
Usage: Screen the topographic base map.
Note: Using the "B thumb-in" right hand, draw a horizontal circle under the "B thumb-in" left palm.



BASE CREDIT NOTE

(sm, abbr)

Usage: The base credit note goes under the lower left corner of the map.
Note: Using the "B thumb-in" right hand, draw a horizontal circle under the "B thumb-in" left palm, then sign "C" with the right hand and, moving it from left to right, change it to an "N".



BATHYMETRIC CONTOURS

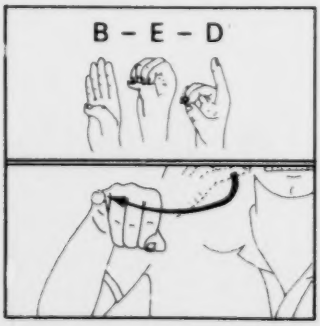
(sm)

Usage: Bathymetric contours show the topography of the ocean floor.
Note: Move the "5" right hand back, down, and under the "B thumb-in" left palm, using a sideways waving motion.

BED

(fs)

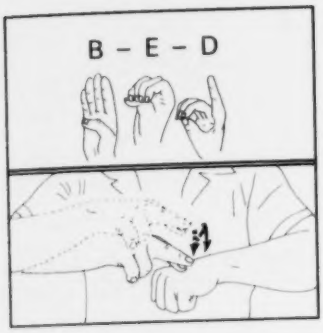
Usage: Ash bed; coal bed; stream bed.
Note: Spell B–E–D.



BEDDING

(fs, sm)

Usage: Crossbedding; bedding plane; graded bedding.
Note: Spell B–E–D, then swing the little finger outward for "ing".



BEDROCK

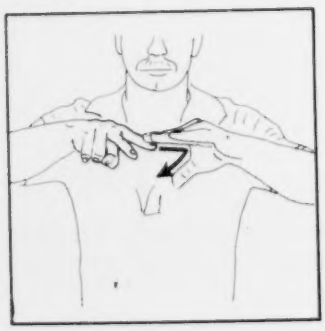
(fs, –)

Usage: Bedrock geology; bedrock formation.
Note: Spell B–E–D, then tap the "R" right-hand fingertips on the back of the "S" left hand.

BEND

(sm)

Usage: A bend in a section; bend the line.
Note: Touch the index fingertips together horizontally and while holding this position, lower the right arm.

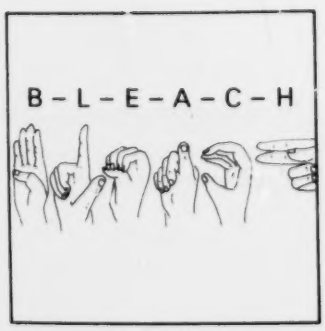


BIANGLE

(sm)

Usage: Use a 40 percent biangle screen on the topographic base negative. The number 40 is given only as an example.
Note: With the "V" right-hand fingertips, draw an angle downward under the "flat C" left fingers to the left thumbtip.

Black plate, *see* **CULTURE PLATE**



BLEACH

(fs)

Usage: Use bleach to open a clear area on a negative.
Note: Spell B–L–E–A–C–H.

Blue, *see* **CYAN, TQ WATER BLUE**

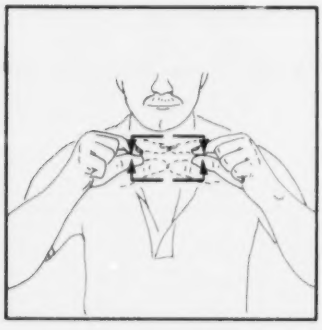
Blue plate, *see* **DRAINAGE PLATE**

BORDER
(sm)

Usage: The border of a figure; a wide border; scribe the map border .008 in.
Note: Slide the "B" right hand to the right along the left index finger, changing the "B" right hand to an "R".

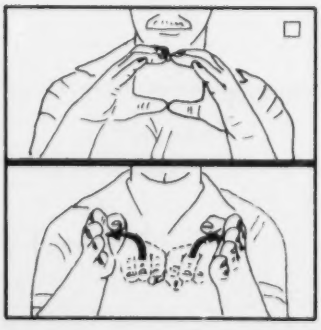
BOUNDARY
(sm)

Usage: National park boundary; county boundary; Indian reservation boundary.
Note: Slide the "B" right hand to the right along the left index finger, changing the "B" right hand to a "Y".



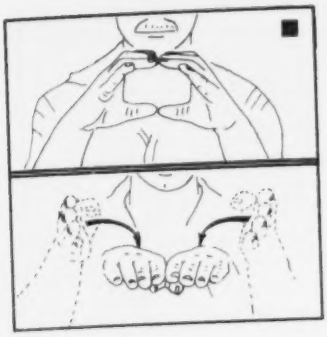
BOX (explanation)
(sm)

Usage: A correlation diagram box; an explanation box.
Note: Touch fingertips of both "G" hands , draw them apart about 3 in., then pinch the fingertips together, thus drawing a small 1 in. × 3 in. rectangle.



BOX (open)
(sm, sm)

Usage: Use an open box symbol, one-twentieth of an inch square, in the figure.
Note: Touching the fingertips together, form a square with both "C" hands, then touch the sides of the index fingers of both "B" hands and separate them in upward and sideways arcs.



BOX (solid)

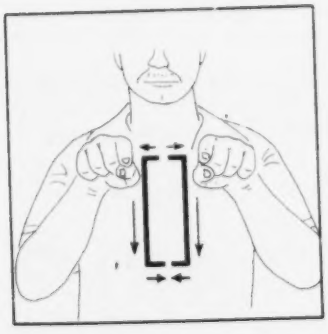
(sm, sm)

Usage: Use a solid box symbol, one-twentieth of an inch square, in the figure.
Note: Touching the fingertips together, form a square with both "C" hands, then bring the sides of the index fingers of both "B" hands together, moving in downward arcs.

BRACE

(sm)

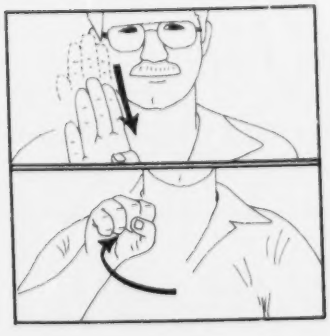
Usage: Scribe a brace from the top of the Qal box to the bottom of the Qt box in the correlation of map units.
Note: With the right index fingertip, draw an imaginary brace in the air.



BRACKET

(sm)

Usage: Bracket the headnote; put a bracket around the word.
Note: With both index fingertips, draw imaginary brackets in the air.



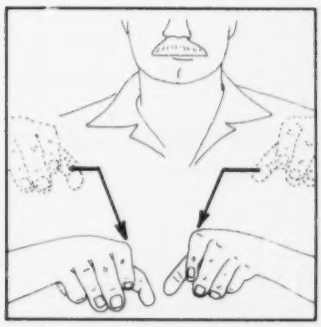
BURNT SIENNA *see also* CONTOUR BROWN

(–, sm)

Usage: Use the color burnt sienna for the base.
Note: Stroke the right cheek with the side of the "B" right hand, then change it to an "S" as the hand moves to the right.

CALCULATOR
(dm)

Usage: Use a calculator to add up the numbers.
Note: Tap the fingertips of the "5" right hand up and down onto the "B-thumb in" left palm several times.



CANYON
(sm)

Usage: Add Butterfly Canyon to the base culture; a narrow canyon area.
Note: Move both palm-down "C" hands toward each other horizontally, then angle them downward and inward almost touching the thumbs together.

CAPITAL, CAPITALIZE
(abbr)

Usage: The first letter of the word is a capital letter. Capitalize the entire word.
Note: Spell the abbreviation C–A–P.

CARTOGRAPHER
(abbr, sm)

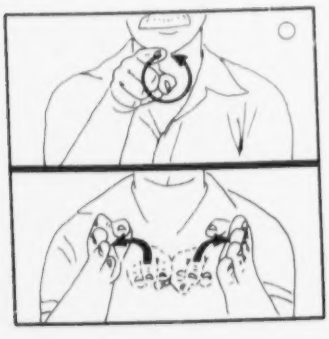
Usage: A cartographer produces maps.
Note: Spell the abbreviation C–A–R–T–O, then sign person, dropping both "P" hands downward.

CARTOGRAPHIC TECHNICIAN
(abbr, sm, sm)

Usage: A cartographic technician works on maps.
Note: Spell the abbreviation C–A–R–T–O, then with the right middle fingertip tap the base of the "B thumb-in" left little finger. Next, sign person, dropping both "P" hands downward.

CARTOGRAPHY
(abbr)

Usage: The branch of cartography; the person works in cartography.
Note: Spell the abbreviation C–A–R–T–O.



CIRCLE (open)
(sm, sm)

Usage: The open circle is used for city or town location symbols.
Note: Draw a circle with the right index fingertip, then, touching the sides of the index fingers of both "B" hands together, separate them in upward and sideways arcs.

CIRCLE (solid)
(sm, sm)

Usage: The solid circle is used for point location symbols.
Note: Draw a circle with the right index fingertip, then bring the sides of the index fingers of both "B" hands together, moving in downward arcs.

CLAMP, CLIP
(sm)

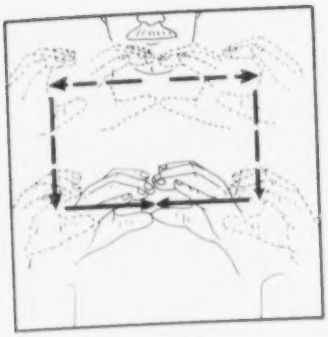
Usage: Use a clamp to hold the shipping boards together.
Note: Clamp the "flat C" right hand fingers over the side of the "B" left hand.

CLEAR FILM
(sm, sm)

Usage: A clear-film base mount; a clear-film positive.
Note: Touch the index fingertips of both bent "B thumb-in" hands, then fan both hands sideways, changing each to a "5". Sweep the "F" right hand thumb-tip outward across the "B thumb-in" left palm, twisting downward at the wrist.

COAL
(fs)

Usage: A coal bed; coal mine; thickness of coal.
Note: Spell C-O-A-L.



COLLAR

(sm)

Usage: The collar is the marginal information around the neatline of a topographic map.
Note: Touch fingertips of both "C" hands together in front of the chin, separate them sideways, move downward, then bring the fingertips together again.

COLOR AND PATTERN GUIDE

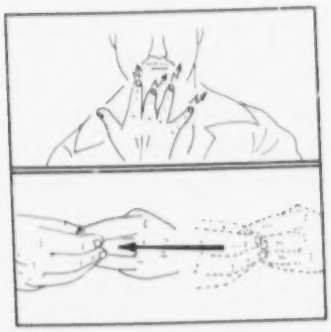
(dm, –, sm)

Usage: The map color code is found in the color and pattern guide.
Note: Wiggle the "5" right-hand fingertips up and down in front of your mouth. Swirl the "P" right-hand fingertip on the "B thumb-in" left-hand fingertips, then with the right-hand fingertips, pull the "B" left-hand fingertips from left to right.

COLOR CIRCLE

(dm, sm)

Usage: Color circles are placed along the right side of the map sheet. Color circles indicate the separate colors in a map unit.
Note: Wiggle the "5" right-hand fingertips up and down in front of your mouth, then swing outwardly and draw a circle in the air with your right index fingertip.



COLOR GUIDE

(dm, sm)

Usage: Color the geologic formations on the color guide sheets; mill-copy color guide.
Note: Wiggle the "5" right-hand fingertips up and down in front of your mouth, then with the right-hand fingertips, pull the "B" left-hand fingertips from left to right.

COLOR PRINT
(dm, sm)

Usage: A color print on scribecoat; a photo color print.
Note: Wiggle the "5" right-hand fingertips up and down in front of your mouth, then pinch the "G" right index finger and thumbtip together into the "B thumb-in" left palm.

COLOR PROOF
(dm, sm)

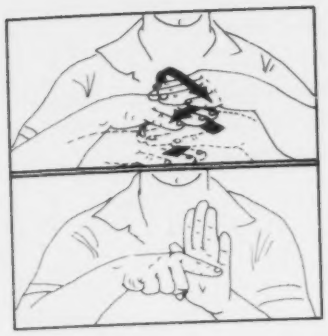
Usage: A paper color proof; a wipe-on color proof.
Note: Wiggle the "5" right-hand fingertips up and down in front of your mouth, then drop the back of the "B thumb-in" right hand into the "B thumb-in" left palm.

COLUMN
(sm)

Usage: A column of text; a stratigraphic column.
Note: Drop the horizontal "C" right hand fingertips downward in front of the "B thumb-in" left palm.

COLUMNAR SECTIONS
(dm)

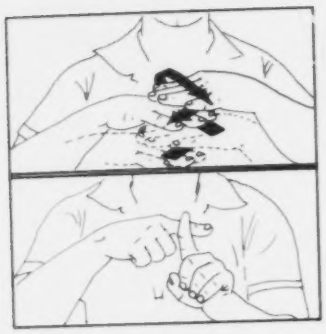
Usage: Columnar sections represent the relationship of rock units.
Note: Drop the horizontal "G" right-hand fingertips downward in front of the "B thumb-in" left palm three times, the first time down the left thumb, then down the middle finger, and the last time down the little finger.



COMPOSITE NEGATIVE

(dm, sm)

Usage: Make a composite negative of all plates that are the same color.
Note: Stack the "B thumb-in" hands one on top of the other starting with the left hand on top of the right then the right on top of the left, and so forth. Bring each hand back toward your chest, then up and over on top of the other. Make the sign for negative by placing the right index finger across the "B thumb-in" left palm.



COMPOSITE POSITIVE

(dm, sm)

Usage: Make a composite positive of all plates that are the same color.
Note: Stack the "B thumb-in" hands one on top of the other starting with the left hand on top of the right then the right on top of the left, and so forth. Bring each hand back toward your chest, then up and over on top of the other. Next, form a plus sign with both index fingers.

Concealed contact, fault, *see* **DOTTED LINE**

CONTACT

(sm)

Usage: Geologic contact; scribe the contact .005 in.
Note: Trace the thumbtip of the "C" right hand outward along the side of the left index finger to the fingertip.

CONTOUR BROWN *see also* BURNT SIENNA

(sm, sm)

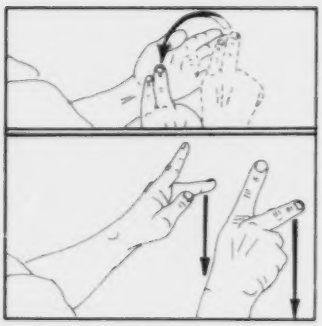
Usage: Use the color contour brown for the base.
Note: Move the "5" right hand, palm down, from left to right, using a horizontal waving motion. Then stroke the right cheek with the side the "B" right-hand index finger.

CONTOURS
(sm)

Usage: Topographic contours; structure contours; aeromagnetic contours.
Note: Move the "5" right hand, palm down, from left to right, using a horizontal waving motion.

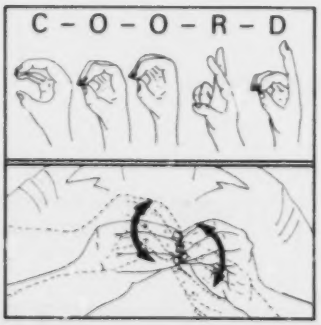
CONTRACT
(sm)

Usage: Sign the contract; contract the mapping project.
Note: Place the "U" right-hand fingertips on the "B thumb-in" left-hand middle fingertip, then jump them back to the heel of the left palm.



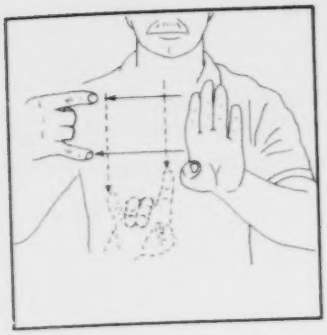
CONTRACTOR
(sm, sm)

Usage: The contractor bid $300.
Note: Place the "U" right-hand fingertips on the "B thumb-in" left-hand middle fingertip, then jump them back to the heel of the left palm. Next, sign person, dropping both "P" hands downward.



COORDINATE NUMBER
(abbr, –)

Usage: Longitude coordinate number; add the coordinate number to the ticks.
Note: Spell the abbreviation C–O–O–R–D, then while touching the fingertips of both "flat O" hands, twist the hands back and forth using an opposite rotating motion.



COORDINATE GRID

(sm)

Usage: Add coordinate grid numbers; the coordinate grid ticks.
Note: Trace the right index finger of the "I" and "1" (combined) right hand downward along the side of the "B" left index finger, then touch these fingertips to the side of the "B" left index finger and draw the right hand away to the side.

COPIER (copying machine)

(dm)

Usage: Use the copier to duplicate the page.
Note: Move the "X" right hand back and forth under the "B thumb-in" left palm.

CORNER TICKS

Usage: Scribe the map corner ticks.
Note: Form a right angle with both index fingertips.

CORRELATE

(sm)

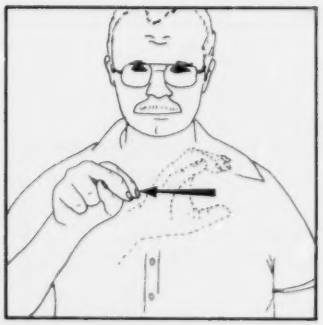
Usage: Correlate the figures; correlate the mapping.
Note: Interlock the fingers of both "bent 5" hands.

CORRELATION OF MAP UNITS
(abbr)

Usage: The correlation diagram illustrates the geologic age relationships.
Note: Sign C–M–U over the "B thumb-in" left fingertips, moving from right to left.

COVER SHEET
(sm, sm)

Usage: Place a cover sheet on the type overlay to protect the type.
Note: Sweep the "B thumb-in" right hand back toward yourself up and over the back of the "B thumb-in" left hand, then swing the right hand outwardly to the right, changing it to an "S".

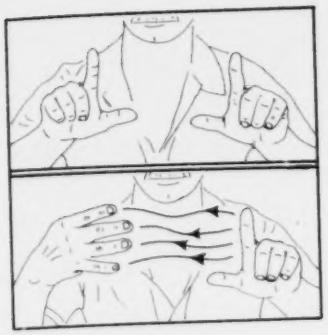


CREDIT NOTE
(sm)

Usage: Place the mapping credit note under the map.
Note: Sign "C" with the right hand and, moving it from left to right, change it to an "N".

CRONAFLEX
(sm, sm)

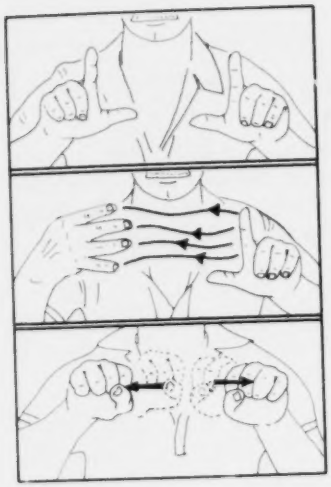
Usage: A cronaflex type overlay; a cronaflex print.
Note: Form a plus with both index fingers, then swing the right hand outwardly to the right, changing it to a "C".



CROSS SECTION

(sm, sm)

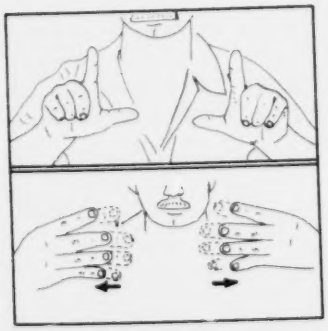
Usage: The cross section is placed below the geologic map.
Note: Place both "L" hands in front of you, thumbtips about 6 in. apart, then touch the fingertips of the "4" right hand along the "L" left index finger and move the right hand from left to right, using an up and down waving motion.



CROSS-SECTION SCALE

(sm, sm, sm)

Usage: The cross-section scale is in feet; label the cross-section scale every 200 feet. The number 200 is given only as an example.
Note: Place both "L" hands in front of you, thumbtips about 6 in. apart, then touch the fingertips of the "4" right hand along the "L" left index finger and move the right hand from left to right using an up and down waving motion. Next, separate both "S" hands.



CROSS-SECTION SCALE TICKS

(sm, sm)

Usage: Add tick marks to the cross-section scale.
Note: Place both "L" hands in front of you, thumbtips about 6 in. apart, then change to horizontal "4" hands with the fingertips separated four inches and draw both hands apart two more inches.

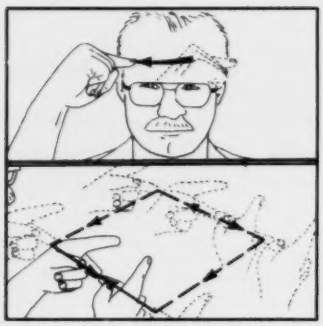
CROWDED CONTOURS

(sm)

Usage: This map has many crowded contours; thin out the crowded contours.
Note: Place both "5" hands in front of yourself, thumbtips touching, then bring the fingertips and hands together, back toward your chest, using a horizontal waving motion.

CROWDED SYMBOLS
(sm)

Usage: Delete some of the crowded symbols off the figure.
Note: With the "bent 5" fingers pointing upward, hands almost touching, bring the fingers and hands together back toward your chest.



CULTURE PLATE (black plate)
(sm, sm)

Usage: Print the culture plate in black.
Note: Draw the right index fingertip across your forehead, then, touch the "P" middle fingertips together, separate them sideways, and draw a horizontal rectangle back to your chest, again touching the middle fingertips.

CURSORY
(sm, sm)

Usage: Perform a cursory check of the map proof; a cursory check of the information.
Note: The thumbs are snapped out of the bent index fingers, then with the right-hand index fingertip, draw a check mark along the "B thumb-in" left palm.

CURVE
(sm)

Usage: Curve the linework; a smooth curve.
Note: With the "B thumb-in" right hand, draw an "S" curve from left to right.

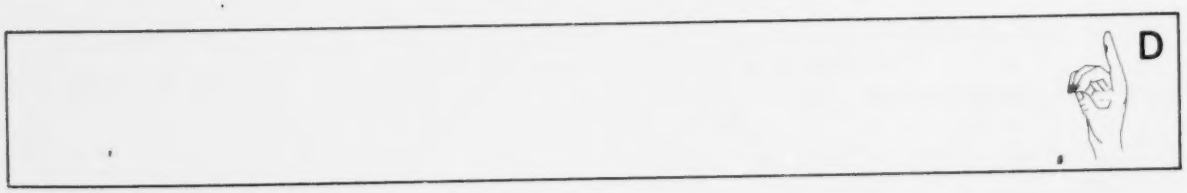
CUT AND PEEL

(sm, sm)

Usage: Make corrections on the cut and peel material.
Note: With the right index fingertip, draw a line down the left middle finger of the "B thumb-in" left palm. Next, place the thumb of the "F" right hand into the left palm and twist it, at the wrist, from the left palm, outward over the left fingertips.

CYAN

Usage: Cyan is a blue color; print the drainage plate in cyan.
Note: Shake the "B" right hand sideways in front of yourself.



DASH, LONG (approximate)

(sm)

Usage: A long dash is used on contacts and faults that are approximately located.
Note: With the right index fingertip, draw two 3-inch-long dashes along the side of the left index finger.

DASH, SHORT (inferred)

(sm)

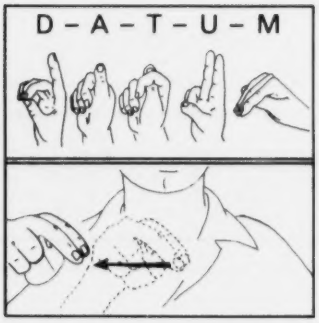
Usage: The short dash is used on contacts and faults that are inferred.
Note: With the right index fingertip, draw three 1-inch-long dashes along the side of the left index finger.

Dash, *see also* **DOTTED LINE**

DATUM

(fs)

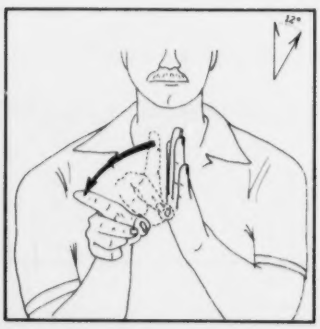
Usage: The datum is mean sea level; the datum is shown in feet; National Geodetic Vertical Datum of 1929.
Note: Spell D–A–T–U–M.



DATUM NOTE

(fs, sm)

Usage: The datum note is placed under the bar scale.
Note: Spell D–A–T–U–M, then move the "N" right hand from left to right.



DECLINATION

(sm)

Usage: Magnetic declination; the declination arrow.
Note: Place the "D" right index finger against the "B thumb-in" left palm, fingers pointing upward, then tilt the index finger away to the side.

DEGREES

(sm)

Usage: Ten degrees latitude; the bedding dips ten degrees.
Note: First sign the number of the degrees, then swing the right hand upwards to an "O". The number ten is given only as an example.

DELETE

(sm)

Usage: Delete the color; delete the formation.
Note: Hold the right hand in a marble shooting position and place it into the "B thumb-in" left palm. Flip the right thumb out of the right index finger while moving the right hand away from the left palm.

DENSITY

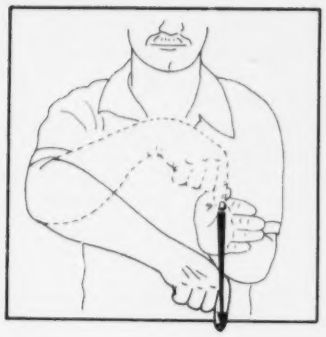
(dm)

Usage: The density of the negative is too light; the screen density is fifty percent; the color density is pale.
Note: Form a horizontal plus sign, crossing both "D" index fingertips, and rock the right hand up and down at the wrist.

DEPRESSION TICKS

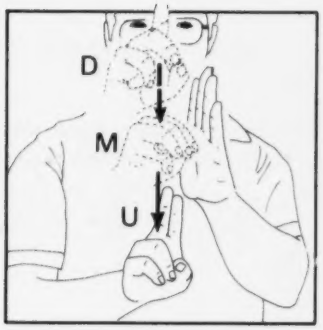
(sm, sm)

Usage: Add depression ticks (hachures) to all closed contour lows.
Note: Move the "5" left hand, palm down, from left to right, using a horizontal waving motion. Then, touch the "4" right-hand fingertips to the side of the "4" left index finger and draw them away to the right, about 2 in.



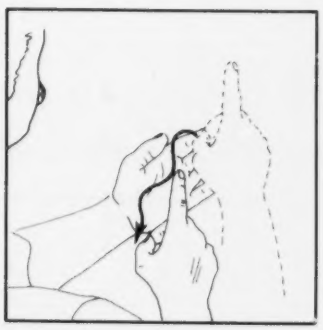
DEPTH
(sm)

Usage: Depth of the drill hole; depth of the formation.
Note: Push the right index finger downward past the "B thumb-in" left palm.



DESCRIPTION OF MAP UNITS
(abbr)

Usage: The description of map units follows the correlation diagram.
Note: With the right hand, spell the abbreviation D-M-U down the face of the "B thumb-in" left palm.



DESIGN
(sm)

Usage: Design the map sheet, the type, and the color.
Note: Draw the thumbnail of the "D" right hand across the "B thumb-in" left palm, using a waving motion.

DEVELOP
(dm)

Usage: Develop the roll of film; develop the picture.
Note: Rock both "flat O" hands back and forth to the side as if panning for gold.

DIAGRAM
(fs)

Usage: Use the schematic diagram; draw a diagram of the figure.
Note: Spell D-I-A-G-R-A-M.

DIAPOSITIVE
(dm)

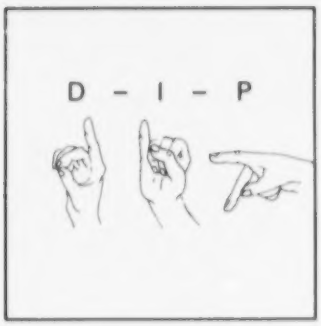
Usage: A diapositive is a photo image on a glass plate or film; a diapositive is used in projecting a stereo image.
Note: Dip both "D" hands, palms down, up and down in front of yourself two or three times as if rinsing something out in water.

DIAZO
(fs)

Usage: A diazo wipe-on yellow scribe.
Note: Spell D-I-A-Z-O.

DIKE
(sm)

Usage: A sedimentary dike; the dike is an igneous intrusion.
Note: Thrust the "B thumb-in" right-hand fingertips between the "B thumb-in" left-hand fingers, about one inch.



DIP
(fs)

Usage: Dip arrow off a fault or contact; dip of bedding.
Note: Spell D-I-P.

DIP ARROW
(sm)

Usage: Add the dip arrow to a fault or a contact.
Note: Place the "baby C" finger of the left hand on the right index finger. Notice, the right index fingertip is pushed under the center knuckle of the left index finger.

DIVISION
(sm)

Usage: The Mapping Division; the Geologic Division; the Water Resources Division.
Note: Touch the "D" right thumbtip to the back of the "S" left hand, using a short, downward spiraling motion.

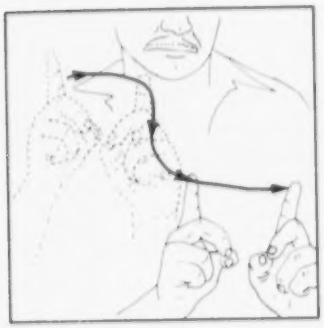
DOTTED LINE (concealed)
(dm)

Usage: A concealed contact or a concealed fault is shown by a dotted line.
Note: Tap the right index fingertip several times along the side of the left index finger.

DRAFTING MACHINE

(sm, dm)

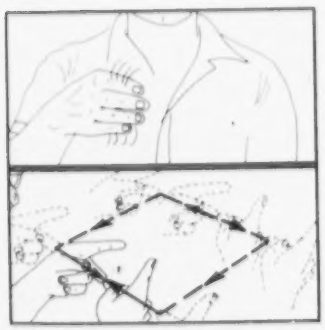
Usage: Use a drafting machine to draw the figure.
Note: With the right little fingertip, draw a flat "S" curve down the "B-thumb in" left palm. Next, mesh the fingers of both "bent 5" hands as if they were gears and shake up and down.



DRAINAGE

(sm)

Usage: Single line drainage; scribe the water drainage.
Note: Place the "D" right hand behind the "D" left hand and push both forward, using a horizontal waving motion.



DRAINAGE PLATE (blue plate, cyan plate)

(–, sm)

Usage: Water is shown on the drainage plate; the drainage plate is printed in blue.
Note: Shake the "B" right hand sideways, then touching the "P" middle fingertips, separate them sideways and draw a horizontal rectangle back to your chest, again touching the middle fingertips.

DRILL HOLE

(sm)

Usage: The drill hole is 100 feet deep; place the drill-hole symbol on the map.
Note: Drop the "D" right hand across the "B thumb-in" left palm, changing the "D" right hand to an "H".

DUPLICATE

(abbr)

Usage: Order a duplicate negative; duplicate the information.
Note: Spell the abbreviation D–U–P.

DYEBACK

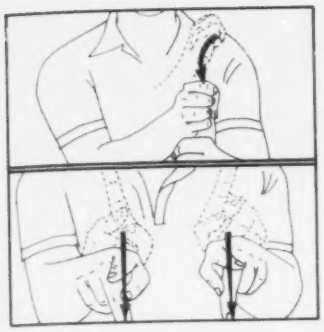
(dm, sm)

Usage: Dyeback is a water-base, orange paint; dyeback the peelcoats.
Note: Sweep the "B thumb-in" right-hand fingertips from the top to the bottom of the "B thumb-in" left palm using a painting motion, then move the back of the "B thumb-in" right hand toward the right shoulder.

EDIT

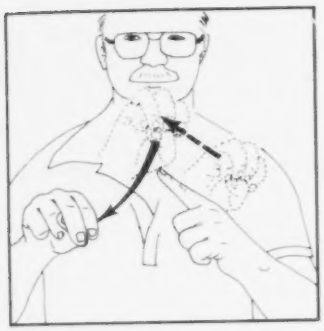
(sm)

Usage Edit the map; edit the text.
Note: With the "E" right-hand fingertips, draw a check mark along the "B thumb-in" left palm.



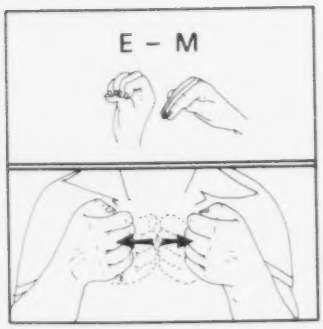
EDITOR
(sm, sm)

Usage: Map editor; text editor.
Note: Touch the thumb of the "E" right hand to the left shoulder, then moving it outward and downward, place it on the "E" left hand. Next, sign person, dropping both "P" hands downward.



ELEVATION
(sm)

Usage: The elevation of a mountain peak; contour elevation numbers.
Note: Draw the "E" right hand 45 degrees upward along the left index finger to the fingertip, then downward, changing the "E" right hand to an "N".



EM SPACE
(fs, sm)

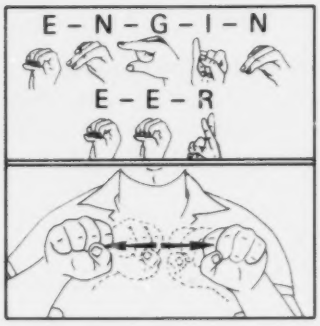
Usage: Paragraphs are indented 2 em spaces.
Note: Spell E-M, then separate the knuckles of both bent "B-thumb in" hands slightly.

EMULSION (reverse reading / left reading)
(sm)

Usage: The emulsion is on the bottom side of a negative.
Note: Slide the "E" right hand forward under the "B thumb-in" left palm to the fingertips for emulsion that is reverse reading.

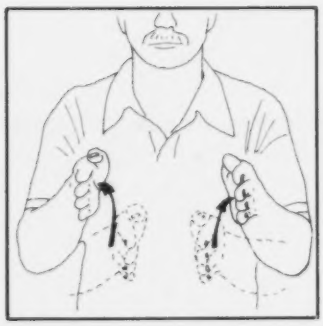
EMULSION (right reading)
(sm)

Usage: The emulsion is on the top side of a positive.
Note: Slide the "E" right hand forward above the back of the "B thumb-in" left hand to the fingertips for emulsion that is right reading.



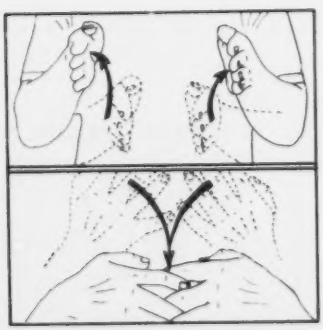
ENGINEER'S SCALE
(fs, sm)

Usage: To measure tenths or hundredths, use an engineer's scale.
Note: Spell "E–N–G–I–N–E–E–R, then separate both "S" hands sideways.



ENLARGE
(sm)

Usage: Enlarge the figure; enlarge the scale.
Note: Place both "B thumb-in" hands 4 in. apart, palms facing, then separate in upward and outward arcs.



ENLARGER
(sm, dm)

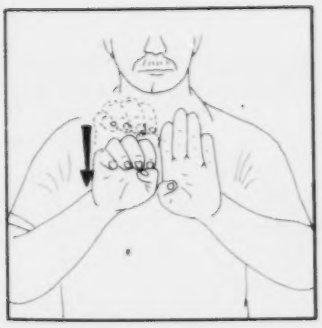
Usage: Use the enlarger to increase or decrease the size of the figure.
Note: Place both "B thumb-in" hands 4 in. apart, palms facing, then separate in upward and outward arcs; next mesh the fingers of both "bent 5" hands as if they were gears and shake up and down.

ETCH
(sm)

Usage: Etch the peelcoats; etch the scribe.
Note: Move the "E" right hand along the left index finger to the fingertip.

EXPLANATION (map)
(sm)

Usage: Layout the main explanation to the right of the map.
Note: Move the "E" right hand downward along the face of the "B thumb-in" left palm.



EXPLANATION (small figure)
(sm)

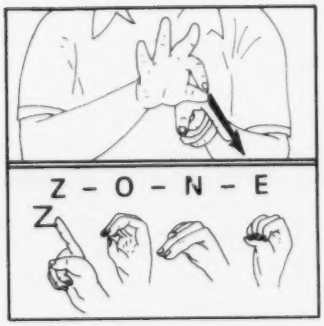
Usage: A figure explanation; a small explanation.
Note: Move the "E" right hand downward along the side of the "B" left index finger.

EXPOSE
(sm)

Usage: Expose the film; to make a print, you expose the negative to make a positive.
Note: Point the "flat O" right-hand fingertips downward above the "B thumb-in" left palm, open them to "5" hands, then close again.

FAULT *see also* BAR AND BALL, MOVEMENT ARROW, SAWTEETH
(sm)

Usage: A thrust fault; a scissors fault; scribe the fault.
Note: Trace the thumbnail of the "F" right hand outward along the left index to the fingertip.



FAULT ZONE
(sm, fs)

Usage: A fault zone is a zone of numerous small fractures; Morris fault zone.
Note: Trace the thumbnail of the "F" right hand outward along the left index finger to the fingertip, then spell Z-O-N-E.

FEET
(fs)

Usage: The scale is in feet; 1,000 ft.
Note: Spell F-E-E-T.

FIELD
(sm)

Usage: Field notes; field surveyor; open field.
Note: With the "F" right-hand thumbnail, draw a horizontal circle above the back of the "B thumb-in" left hand.

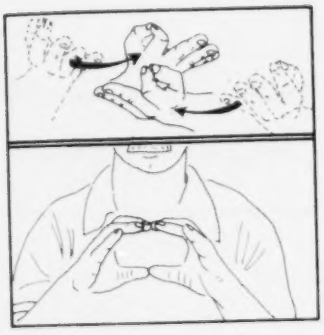


FIGURE
(sm, sm)

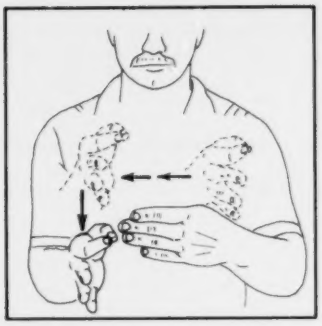
Usage: A column-width figure; enlarge the figure; a black and white figure.
Note: Move the back of the "F" right hand across the "F" left palm, then form a box by touching the fingertips of both "C" hands together.

FILL
(sm)

Usage: Land fill, red road fill.
Note: Brush the "B thumb-in" right palm over the thumb and index finger of the "S" left hand.

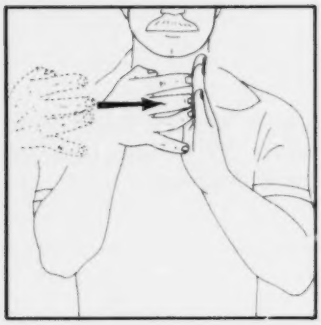
FILM
(sm)

Usage: Reverse-reading negative film; develop the film; color film.
Note: Sweep the "F" right hand outward along the face of the "B thumb-in" left palm.



FISCAL
(sm)

Usage: Fiscal year 1988; the government fiscal year begins the first of October.
Note: Slide the little finger of the "F" right hand along the "B" left-hand index finger, dropping over the end of left-hand fingertips.

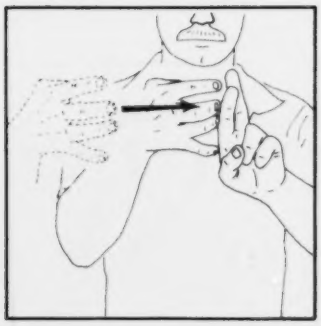


FLUSH
(sm)

Usage: Make the type flush with the edge of the figure; the left side of the type should be flush.
Note: Place the "4" right-hand fingertips into the "B thumb-in" left palm.

FLUSH LEFT
(sm)

Usage: The column of type should be flush left; align the heading, flush left.
Note: Place the "4" right-hand fingertips along the side of the "L" left index finger.



FLUSH RIGHT
(sm)

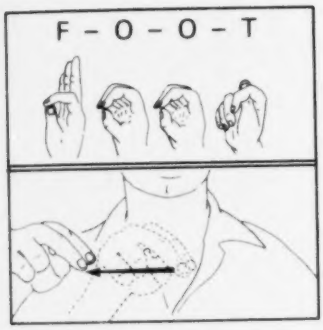
Usage: The column of type should be flush right; align the heading, flush right.
Note: Place the "4" right-hand fingertips along the side of the "R" left-hand fingers.

FOLD For geologic fold, *see* GEOLOGIC FOLD, ANTICLINE, MONOCLINE, SYNCLINE

(sm)

Usage: Fold a map; fold the paper.
Note: Fold the "B thumb-in" right palm over the "B thumb-in" left palm.

Folder, *see* **GREEN FOLDER, JOB FOLDER, LARGE FOLDER, SMALL FOLDER**



FOOTNOTE

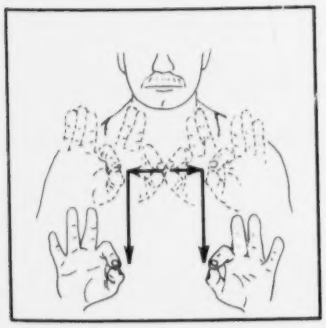
(fs, sm)

Usage: The footnote goes under the text or table.
Note: Spell F–O–O–T, then move the "N" right hand from left to right.

FOREST *see also* WOODS

(dm)

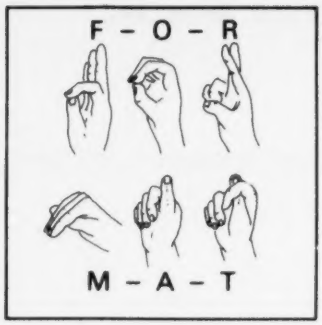
Usage: Morris National Forest.
Note: Place the elbow of the "F" right hand on the back of the "B thumb-in" left hand and twist the hand outward then backward from the wrist, two or three times.



FORM

(sm)

Usage: Photo order form; estimating form.
Note: Touch the "F" thumbtips together, fingertips up, separate them sideways, then drop the hands downward.

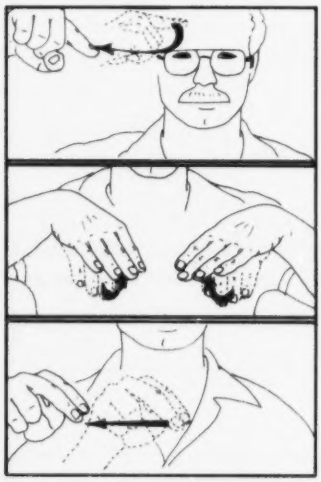


FORMAT
(fs)

Usage: Design a map format; format the report.
Note: Spell F-O-R-M-A-T.

FORMATION
(sm)

Usage: Formation name; geologic formation.
Note: Push the "F" right hand in an arc outward and over the back of the "S" left hand.

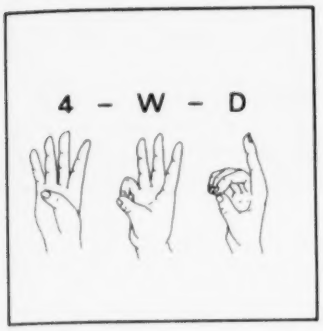


FOR SALE NOTE
(sm, dm, sm)

Usage: Place the for sale note in the lower right corner of the map.
Note: Touch the right index fingertip to the forehead and swing the fingertip outward. Next, move the "flat O" fingertips outward then backward from the wrist two or three times, then move the "N" right hand from left to right.

FOSSIL
(sm)

Usage: Fossil locality symbol; a fossil bed.
Note: With the thumbnail of the "F" right hand, draw a small spiral onto the "B thumb-in" left palm.



FOUR-WHEEL DRIVE (4 WD)

(abbr)

Usage: A 4-wheel-drive road.
Note: Spell the initials 4–W–D.

FRENCH CURVE

(sm, sm)

Usage: Use the french curve to scribe the linework.
Note: Twist the "F" right hand back toward yourself, then with the "B" right hand, draw an "S" curve from left to right.

GARLAND GREEN

(fs, dm)

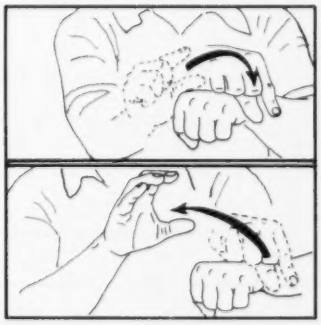
Usage: Use the color garland green for dikes; to emphasize small areas, use garland green.
Note: Spell "G–A–R–L–A–N–D, then shake the "G" right hand in front of yourself two or three times.

GENERALIZED GEOLOGY

(sm, sm, sm)

Usage: The generalized geology shows the simplified contacts and faults.
Note: Touching the middle fingertips of both "B thumb-in" hands, fan them outwardly in arcs away from yourself, then push the "G" right hand in an arc outward over the back of the "S" left hand and bring the right hand back over toward yourself, changing it to a "Y".

Geographic names, *see* **CULTURE PLATE**



GEOLOGIC

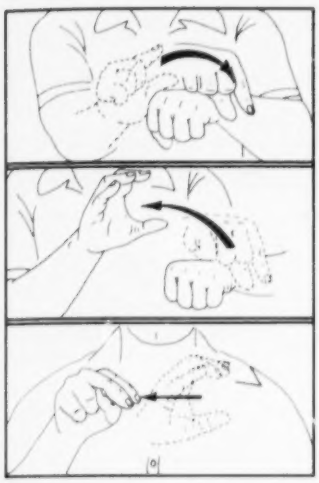
(sm, sm)

Usage: Geologic map; geologic formation.
Note: Push the "G" right hand in an arc outward over the back of the "S" left hand and bring the right hand back over toward yourself, changing it to a "C".

GEOLOGIC COLUMN

(sm, sm, sm)

Usage: Place the geologic column to the left of the map.
Note: Push the "G" right hand in an arc outward over the back of the "S" left hand and bring the right hand back over toward yourself, changing it to a "C". Next, turn the "G" of the right hand sideways and drop it down the face of the "B thumb-in" left palm.



GEOLOGIC CREDIT NOTE

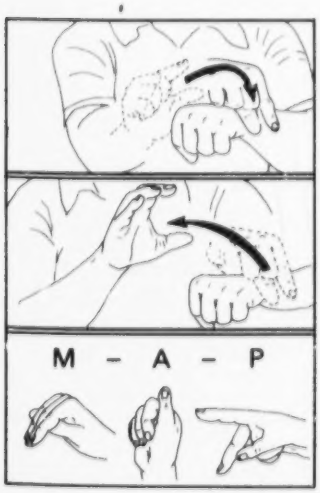
(sm, sm, sm)

Usage: The geologic credit note goes under the lower right corner of the map.
Note: Push the "G" right hand in an arc outward over the back of the "S" left hand and bring the right hand back over toward yourself, changing it to a "C". Then, move the "C" right hand from left to right, changing it to an "N".

GEOLOGIC FOLDS *see also* ANTICLINE, MONOCLINE, SYNCLINE

(sm, sm, sm)

Usage: Geologic folds are the product of deformation; show the geologic folds on a separate plate.
Note: Push the "G" right hand in an arc outward over the back of the "S" left hand and bring the right hand back over toward yourself, changing it to a "C". Then fold the "B thumb-in" right palm over the "B thumb-in" left palm.



GEOLOGIC MAP

(sm, sm, fs)

Usage: A surficial geologic map.
Note: Push the "G" right hand in an arc out and over the back of the "S" left hand and bring the right hand back over toward yourself, changing it to a "C". Then spell M-A-P.

GEOLOGY
(sm, sm)

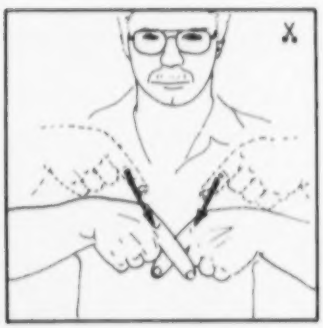
Usage: Bedrock geology; surficial geology.
Note: Push the "G" right hand in an arc outward over the back of the "S" left hand and bring the right hand back over toward yourself, changing it to a "Y".

GLACIER
(sm, sm)

Usage: The Morris Glacier; show the glacier on the drainage plate.
Note: Drop both "5" hands downward, changing them to "bent 5" hands, then straighten the fingers to "5" hands and push the hands forward, crossing the fingers.

GRAPH
(sm)

Usage: A line graph figure; the graph indicates time-cost relationship.
Note: Move the "G" right hand diagonally upward from the corner of the "L" of the left hand.



GRAVEL PIT
(sm)

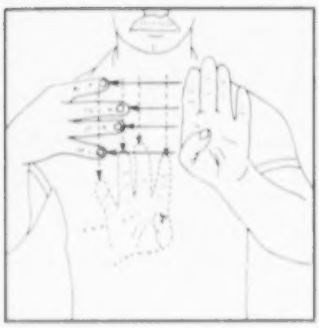
Usage: Gravel pit symbol; gravel pit location.
Note: Form an "X" with both index fingers, pushing downward.

GREEN FOLDER *see also* JOB FOLDER

(dm, sm)

Usage: The green folder contains information about the mapping project.
Note: Shake the "G" right hand in front of yourself, then fold the "B thumb-in" right palm over the "B thumb-in" left palm.

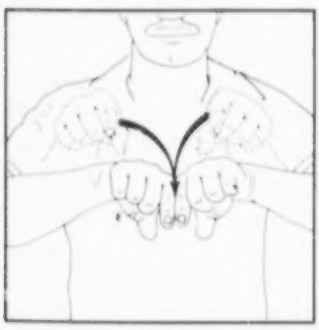
Green, *see* **GARLAND GREEN, WOODS GREEN**



GRID *see also* COORDINATE GRID

(sm)

Usage: The positive grid is divided into squares one-tenth of an inch wide.
Note: Trace the "4" right-hand index fingertip downward along the side of the "B" left index finger, then touch the "4" right-hand fingertips to the side of the "B" left index finger and draw the right hand away to the side.

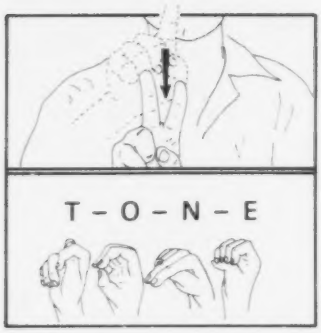


GULCH

(sm)

Usage: A dry gulch; Morris Gulch.
Note: Arc both "G" hands inward and downward touching the sides of the index fingers.

Hachures, *see* **DEPRESSION TICKS.**



HALF TONE
(sm, fs)

Usage: Half-tone negatives and positives.
Note: Lower the "1" right hand, changing it to a "2", then spell T–O–N–E.

HAND LENS
(sm)

Usage: Use the hand lens to magnify the image.
Note: Look downward through the "G" right-hand fingertips.

HAND PUNCH
(dm)

Usage: Use the hand punch to make round registration holes.
Note: Push the thumbtip of the "A" right hand into the "B thumb-in" left palm two or three times.

HANG INDENT
(sm)

Usage: Hang indent the paragraphs; hang indent the title of the figure.
Note: Place the index fingertip of the "1" right hand under the index fingertip of the "1" left hand, then drop the right hand downward.

HARD COPY

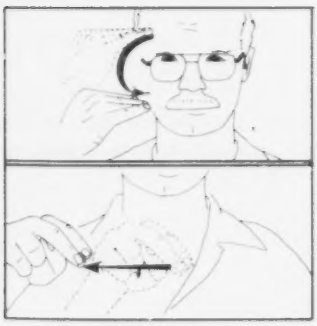
(sm, sm)

Usage: Computer-generated type that is developed on photographic paper is called a hard-copy print.
Note: Strike the knuckle of the bent "V" right hand on the back of the "S" left hand, then spread the "5" right-hand fingertips onto the "B thumb-out" left palm and drawing the right hand away to the side, close the right fingertips to a "flat O".

HEADING

(sm)

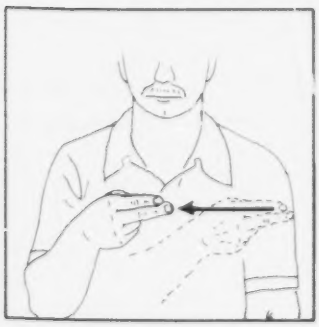
Usage: The heading is centered above the text; upper right heading.
Note: Touch the "bent B" right-hand fingertips to the right temple and drop the hand down to the right cheek. Then, swing the little fingertip outwardly for "ing".



HEADNOTE

(sm, sm)

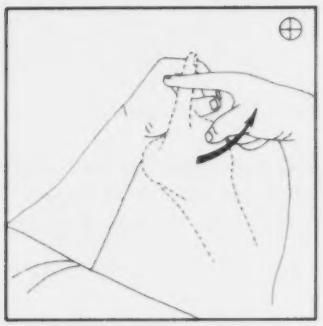
Usage: Center the headnote above the column of text,
Note: Touch the "bent B" right-hand fingertips to the right temple and drop the hand down to the right cheek. Then, change the "bent B" right hand to an "N" hand and move it from left to right.



HORIZONTAL

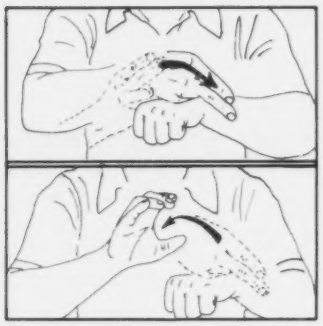
(sm)

Usage: Horizontal control; horizontal displacement; horizontal fault.
Note: Move the "H" right hand horizontally from left to right.



HORIZONTAL BED
(sm)

Usage: Horizontal beds are flat lying.
Note: Form a plus with the right index finger across the diameter of the "O" left hand.



HYDROLOGIC
(sm, sm)

Usage: Hydrologic atlas; hydrologic contours.
Note: Push the "H" right hand in an arc outward over the back of the "S" left hand, then bring the right hand back over toward yourself, changing it to a "C".

HYDROLOGY
(sm, sm)

Usage: The hydrology of an area or district.
Note: Push the "H" right hand in an arc outward and over the back of the "S" left hand, then bring the right hand back over toward yourself, changing it to a "Y".

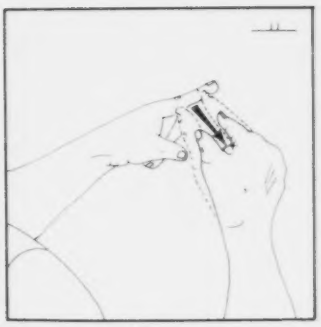
HYPHEN
(sm)

Usage: Place a hyphen between the two words.
Note: With the little fingertip of the "I" right hand, draw a short dash in the air.

IMAGE
(sm)

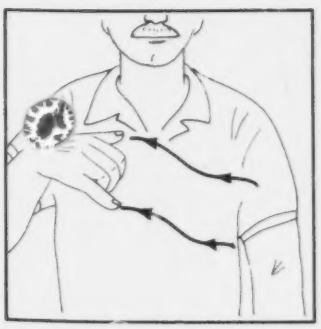
Usage: Print a red contour image; the image is not clear.
Note: Touch the little fingertip of the "I" right hand to the right temple, then place it in the "B thumb-in" left palm.

INCLINED CLEAVAGE
(sm)

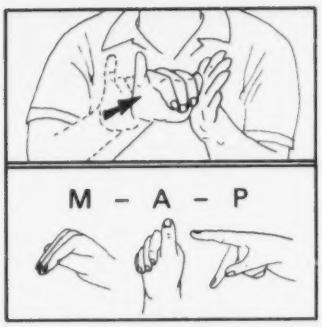


Usage: Inclined cleavage indicates the plane along which a rock tends to split.
Note: Touch the "G" right-hand fingertips along the side of the left index finger, then draw the right hand back about two inches.

INDEX CONTOUR
(sm)

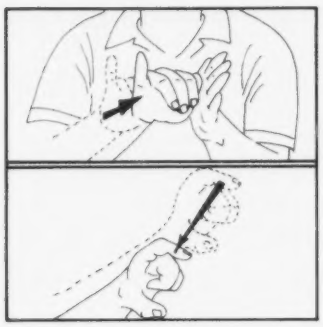


Usage: Every fifth contour is an index contour; scribe the index contours .015 in. wide.
Note: Move the "Y" right hand, palm down, from left to right, using a horizontal waving motion.



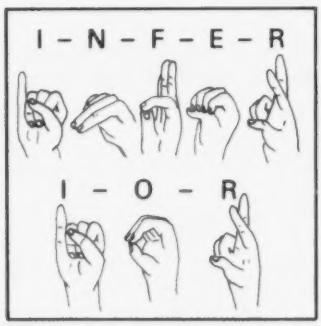
INDEX MAP
(sm, fs)

Usage: The index map shows the quadrangle location; place the index map under the text.
Note: Place the "I" right thumb in the "B thumb-in" left palm, then spell M–A–P.



INDEX TICKS
(sm,sm)

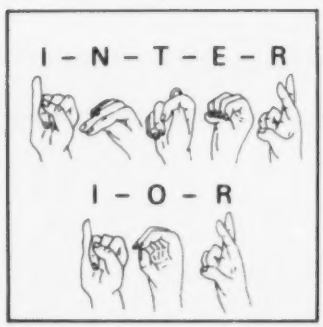
Usage: Vertical scale index ticks; place numbers next to the index ticks.
Note: Place the "I" right-hand thumb into the "B thumb-in" left palm, then form a "baby C" with the left hand and move it horizontally back toward yourself.



INFERIOR
(fs)

Usage: An inferior number; an inferior job.
Note: Spell I–N–F–E–R–I–O–R.

Inferred contact, fault, fold, see **DASH, SHORT**



INTERIOR
(fs)

Usage: The Department of the Interior.
Note: Spell I–N–T–E–R–I–O–R.

INTERIOR NOTE
(sm)

Usage: Place the Interior note under the right hand corner of the map.
Note: Slide the "G" right-hand fingertips from left to right underneath the "L" left thumb.

INTERMEDIATE CONTOURS
(sm)

Usage: Of the five contours, the middle three are intermediate; scribe the intermediate contours .008 in. wide.
Note: Move the "W" right hand, palm down, from left to right, using a horizontal waving motion.

INTERMEDIATE TICKS
(dm)

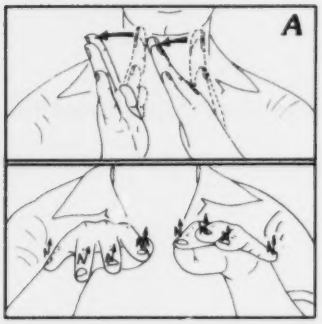
Usage: Vertical scale intermediate ticks; do not place numbers opposite the intermediate ticks.
Note: Form a "baby C" with the left hand and place the "W" right-hand fingertips at the back of the "C". Then, pull the right hand away about 2 in.

INTERNATIONAL
(sm)

Usage: International boundary; international territory.
Note: Using the "I" right hand, draw a circle outward, over, and under the "S" left hand.

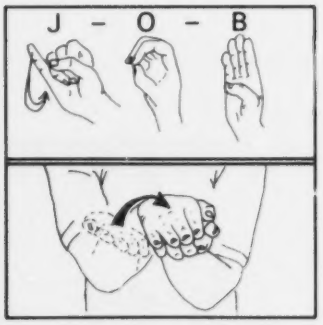
INTRODUCTION
(sm)

Usage: The text's introduction follows the description of map units and symbols.
Note: Slide the thumb of the "I" right hand down the face of the "B thumb-in" left palm.



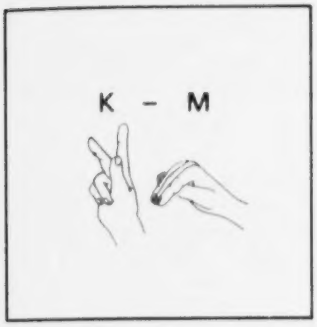
ITALIC TYPE
(sm, –)

Usage: Use italic type for drainage names; italic type emphasizes words.
Note: Slant both "B thumb-in" hands from a vertical position to about a 60 degree angle, then wiggle both "5" hand fingertips up and down in front of yourself as if typing.



JOB FOLDER *see also* GREEN FOLDER
(fs, sm)

Usage: The job folder has the author's routing slip, the printing instructions, and so forth.
Note: Spell J–O–B, then fold the "B thumb-in" right palm over the "B thumb-in" left palm.

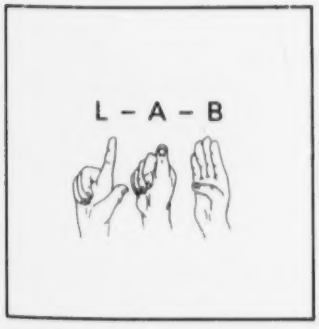


KILOMETERS
(abbr)

Usage: The scale is in kilometers; 100 km long.
Note: Spell the abbreviation K–M.

KRYLON (clear)
(sm, dm)

Usage: Protect the inked area with a thin coat of Krylon spray.
Note: Touch the index fingertips of both "flat O" hands together, then fan both hands outwardly and upwardly, separating each to a "5". Next, grasp an imaginary aerosol can with the right hand and push the spray nozzle up and down with the right index fingertip.



LAB *see also* PHOTO LAB
(fs)

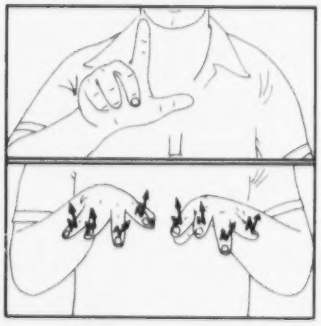
Usage: Photo lab; research lab.
Note: Spell L–A–B.

LABEL (scale ticks)
(sm)

Usage: Label the numbers on the index scale ticks; label every one-hundred-foot tick.
Note: Place the "G" right-hand fingertips close to the "baby C" left index fingertip and draw it away to the right about 2 in. Do the same to the thumbtip of the left hand.

LABEL (stick on)
(sm)

Usage: A crack-and-peel stick-on label.
Note: Slap the "L" right hand onto the "B thumb-in" left palm and slide it downward 1 in. as if rubbing the label down.

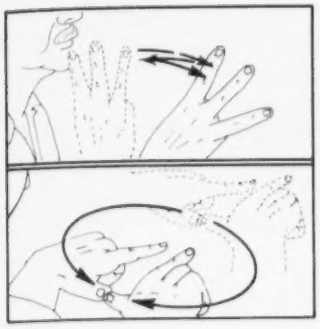


LABEL (to place type)
(sm, dm)

Usage: Label the geologic formations by placing type on the overlay.
Note: Sign "L", then wiggle both "5" fingertips up and down in front of yourself as if typing.

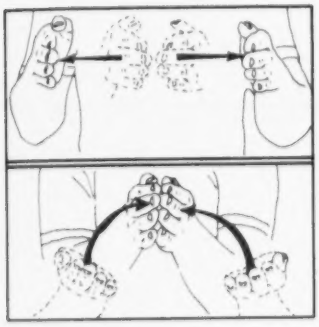
LABEL (write out or list)
(dm)

Usage: Label the formation names on the peelcoats.
Note: Move the "L" right hand forward along the "B thumb-in" left palm using an abbreviated writing motion.



LAKE
(dm, sm)

Usage: Morris Lake; print the lake in blue.
Note: With the index fingertip of the "W" right hand, strike the side of the mouth two to more times, then touch both "L" thumbtips together in front of yourself, separate them, and circle them back to the chest by drawing a horizontal circle.



LARGE FOLDER
(sm, sm)

Usage: Ship the map in a large folder to keep it flat; the large folder is made from double-ply cardboard.
Note: Separate the palms of both "B thumb-in" hands about 15 in. apart, then bring both palms together again in a wide, upward arc.

LATITUDE
(sm, sm)

Usage: Forty degrees north latitude; latitude coordinate lines are parallel.
Note: Draw a circle with the "W" right hand outward, over, back under and above the "W" left hand. Next, with the "4" right-hand fingertips, make a horizontal pass from left to right in front of the "W" left-hand knuckles.

LAVA
(fs)

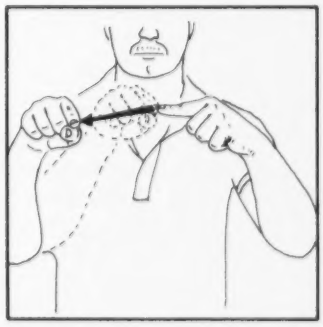
Usage: Lava flows; lava dome; lava breccia.
Note: Spell L-A-V-A.

LAYOUT
(fs, sm)

Usage: Design a map layout; layout all the mill copy.
Note: Spell L–A–Y, then lift the "B" right-hand fingertips out of the "flat C" left-hand fingers.

LEAD *see also* POINT-LEADING
(dm)

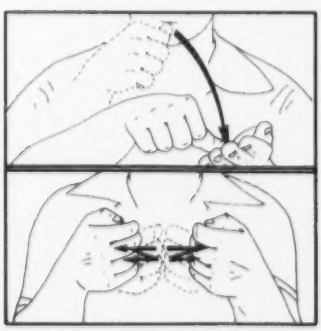
Usage: A lead is used to increase the space between lines of type; use one or more leads.
Note: Trace the right index fingertip along the side of the "4" left-hand middle finger two or three times.



LEADER
(sm)

Usage: Leader the formation name into the area; a leader should be one-tenth inch long.
Note: With the right index fingertip, draw a short line outward from the left index fingertip.

Left reading, *see* **REVERSE READING**



LETTERSPACE
(sm, –)

Usage: Letterspace the type; use twelve-point letterspace between each letter.
Note: Place thumbtip of the "A" right hand against the mouth, then place it in the "B thumb-in" left palm. Next, touch the knuckles of both hands and separate them sideways one or two times.

LEVEL (Photogrammetry)
(dm)

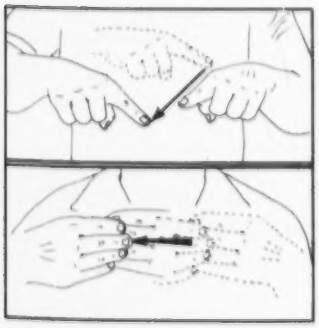
Usage: Level your stereo model to orient it to ground elevation.
Note: Rock both "B thumb-in" hands using a see-saw motion, downward to the left, then downward to the right, 2 or 3 times.

LEWIS PURPLE
(sm, dm)

Usage: Use the color lewis purple for dike formations; to emphasize small formation areas, use lewis purple.
Note: Change the "L" right hand to a "P" hand and shake it sideways in front of yourself.

LINE *see also* DASH, LONG; DASH, SHORT; DOTTED LINE; NEATLINE
(sm)

Usage: Fault line; contact line; neatline; dashed line.
Note: Trace the right index fingertip forward along the side of the left index finger.



LINE GUIDE
(sm, sm)

Usage: The line guide is a colored-out paper print of different types of lines on the map.
Note: Trace the right index fingertip forward along the side of the left index finger, then with the right-hand fingertips, pull the "B" left-hand fingertips from left to right.

LINE MIKE (50 power magnifying lens)
(sm)

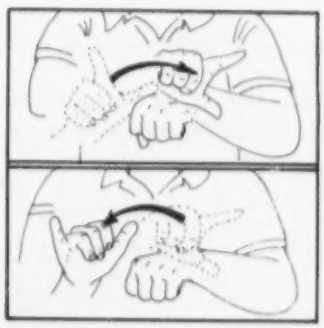
Usage: Use the line mike to measure line widths.
Note: Look downward through the "O" right hand to the "C" left hand.

LITHOLOGIC
(sm, sm)

Usage: Lithologic unit; lithologic log; a lithologic map shows rock types.
Note: Push the "L" right hand in an arc out over the back of the "S" left hand and bring the right hand back over toward yourself, changing it to a "C".

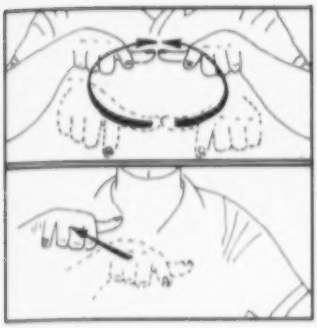
LITHOLOGIC COLUMN
(sm, sm, sm)

Usage: Place the lithologic column to the left of the map.
Note: Push the "L" right hand in an arc out over the back of the "S" left hand and bring the right hand back over toward yourself, changing it to a "C". Next, turn the "G" right hand horizontal and lower it down the face of the "B thumb-in" left palm.



LITHOLOGY
(sm, sm)

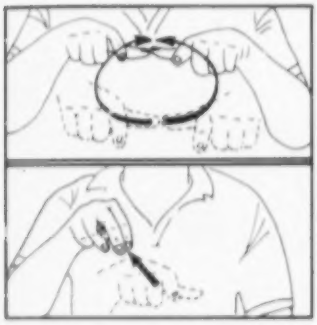
Usage: Lithology is the study of rocks.
Note: Push the "L" right hand in an arc out over the back of the "S" left hand and bring the right hand back over toward yourself, changing it to a "Y".



LOCALITY

(sm, sm)

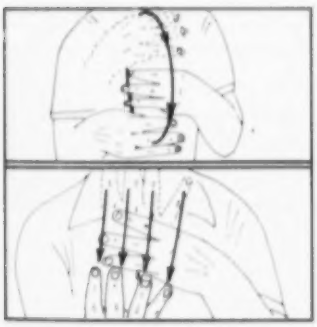
Usage: Fossil locality symbol; locality map.
Note: Touch both "L" thumbtips together, separate them and circle horizontally back to the chest, again touching the thumbtips, then change the "L" right hand to a "Y".



LOCATION

(sm, sm)

Usage: Quadrangle location map; map location.
Note: Touch both "L" thumbtips together, separate them and circle horizontally back to the chest, again touching the thumbtips, then change the "L" right hand to a "N".



LONGITUDE

(sm, sm)

Usage: 106 degrees west longitude; longitude coordinates run from the North Pole to the South Pole.
Note: Draw a circle with the "W" right hand outward, over, back under and above the "W" left hand. Next, with the "4" right-hand fingertips, make a vertical pass downward in front of the "W" left-hand knuckles.

LOWER CASE

(sm)

Usage: The word is typed in lower case letters.
Note: Lower the "L" right hand, changing it to a "C".

LOWER LEFT
(sm)

Usage: The lower left corner of the map.
Note: Lower the "L" right hand, then move it to the left.

LOWER RIGHT
(sm)

Usage: The lower right corner of the map.
Note: Place the "L" right hand to the left of the chin and lower it to mid-chest, then move it from left to right, changing it to an "R".

M

MACHINE PUNCH
(dm, -)

Usage: Machine punch slotted registration holes in a 34 in. × 44 in. scribecoat.
Note: Mesh the fingers of both "bent 5" hands as it they were gears and shake up and down. Thrust the heels of both "S" hands downward, outward and upward one or two times.

MAGENTA

(fs)

Usage: Use the color magenta for the structure contours; magenta will overprint other colors.
Note: Spell M-A-G-E-N-T-A.

MAGNETIC

(sm)

Usage: Magnetic declination; magnetic anomaly; magnetic north.
Note: Touch both "M" hand fingertips together (the left hand does not move).

MAJOR

(fs)

Usage: Major folds; major anticline.
Note: Spell M-A-J-O-R.

MAKE LINE

(dm, sm)

Usage: A make line is used for photo enlargement or reduction measurement.
Note: Twist both "S" hands back and forth, one above the other, with a wringing motion. Next, trace the right index fingertip forward along the side of the left index finger.

MANGROVE (pattern)
(sm)

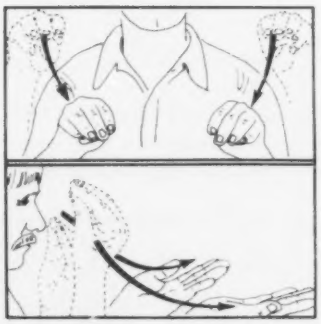
Usage: Use the mangrove pattern on the map.
Note: Starting with the "M" right hand, circle horizontally above the back of the "B thumb-in" left hand, changing the "M" right hand to a "G" halfway around.

MAP *see also* GEOLOGIC MAP, TOPOGRAPHIC MAP
(fs)

Usage: Geologic map; topographic map; index map.
Note: Spell M–A–P.

MAP JACKET
(fs, sm)

Usage: The folded maps are placed in a map jacket.
Note: Spell M–A–P, then insert the "B thumb-in" right hand fingers into the "flat C" left hand.



MARGINAL INFORMATION
(sm, sm)

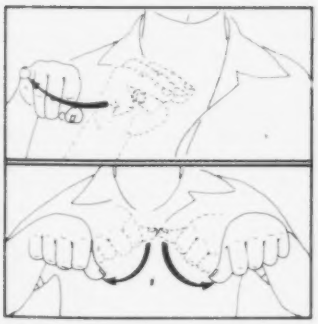
Usage: The marginal information is the area around the perimeter of the map.
Note: Lower the "M" hands from above the shoulders to chest level, then point the "flat O" hand fingertips toward the forehead and move them downward and away from yourself, ending with "B thumb-out" hands with palms facing upward.

MASK
(fs)

Usage: Use a mask to block out the areas on the negative you do not want to print.
Note: Spell M–A–S–K.

MASK RITE
(dm, sm)

Usage: Use the opaque mask rite to block out the negative.
Note: Squeeze the "O" right hand in front of the mouth two or three times, then sweep the "B thumb-in" right hand back toward yourself, up and over the back of the "B thumb-in" left hand.



MASKING TAPE
(sm, sm)

Usage: Secure the cover sheet with masking tape.
Note: Sign "M" with the right hand, then swing the little finger outward to the right for "ing". Next, touch the "A" thumbtips together and separate them by pushing downward and outward to the side.

MATTE
(sm)

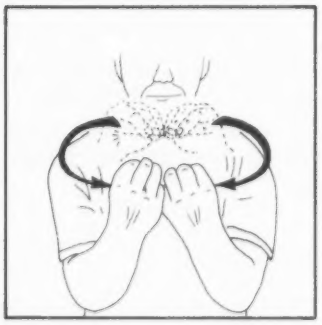
Usage: A matte photo finish; a matte-finish cronoflex positive.
Note: Sweep the "M" right hand fingertips in an arc outward across the "B thumb-in" left palm.

MAXIMUM
(sm)

Usage: Maximum depth, maximum intensity.
Note: Moving the "M" right hand upward, place the back of it into the palm-down "B thumb-in" left palm.

MEASURING TAPE

Usage: A 25-foot-long measuring tape.
Note: Touch the thumbtips of both "Y" hands and move the right hand only, from left to right, one or two times.

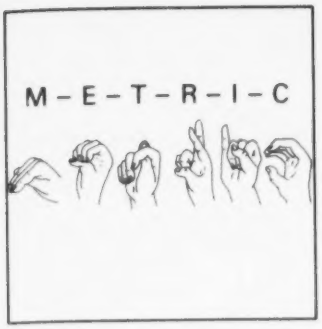


MEMBER
(sm)

Usage: The Morris Sandstone Member; siltstone member.
Note: Touch the "M" index fingertips together, close to the chest, fingertips outward, and draw a horizontal circle away from yourself, touching the sides of the little fingers together.

METERS
(fs)

Usage: The scale is in meters; 20 m long.
Note: Spell M-E-T-E-R-S.

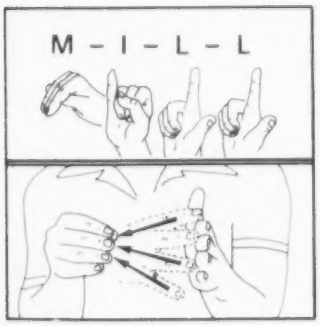


METRIC
(fs)

Usage: Metric base; metric scale.
Note: Spell M–E–T–R–I–C.

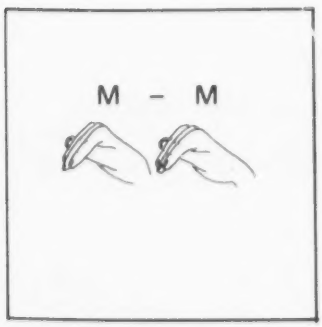
MILES
(fs)

Usage: The scale is in miles; 20 mi long.
Note: Spell M–I–L–E–S.



MILL COPY
(fs, sm)

Usage: Colored-out mill copy; mill copy of the text.
Note: Spell M–I–L–L, then spread the "5" right-hand fingertips and thumb over the "B thumb-out" left palm and draw the hand away to the side, closing the right-hand fingertips together to form a "flat O" right hand.



MILLIMETERS
(abbr)

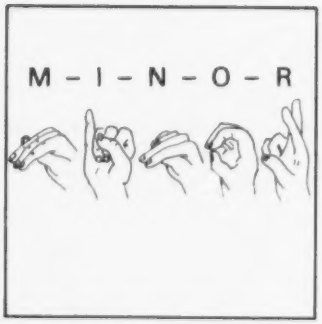
Usage: The scale is in millimeters; 20 mm long.
Note: Spell the abbreviation M–M.

MINE
(sm)

Usage: A mine shaft; the Morris-Rogers mine.
Note: Form an "X" with both index fingers and push diagonally upward.

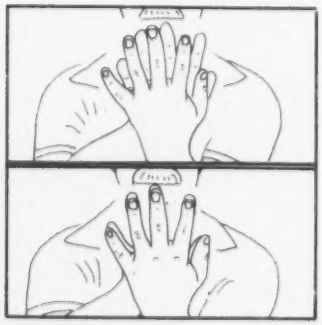
MINIMUM
(sm)

Usage: Minimum depth; minimum intensity.
Note: Move the "M" right hand fingertips downward, almost touching the back of the "B thumb-in" left hand.



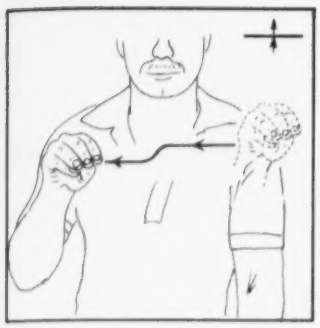
MINOR
(fs)

Usage: Minor anticline; minor axis.
Note: Spell M–I–N–O–R.



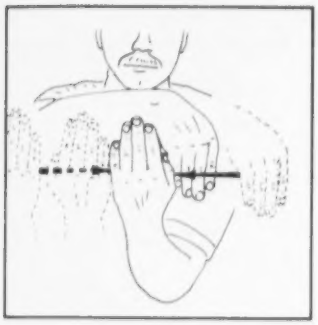
MOIRE
(sm)

Usage: Two different screen angles create an unwanted moire pattern.
Note: With palms touching, place the fingers of both "5" hands between each other, then move the right-hand fingers to align with the left-hand fingers.



MONOCLINE (fold)
(sm)

Usage: A monocline dips down from the axial plane in one direction only.
Note: Move the "M" right hand from left to right, lowering the right hand slightly halfway through the motion.



MOSAIC
(dm)

Usage: The joining together of several map bases or photographs is called a mosaic.
Note: First touch the sides of the "B thumb-in" little fingers together, then turn the right hand over and touch the side of the little finger to the side of the left thumb.

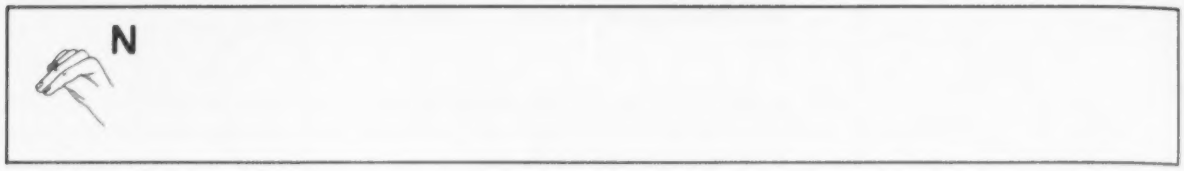
MOUNT

Usage: Mount the base positives to a cronaflex positive.
Note: Slap the "B thumb-in" right palm onto the "B thumb-in" left palm.

MOVEMENT ARROW
(sm)

Usage: The movement arrow shows direction of movement along a fault.
Note: Pinch the right thumbtip into the first knuckle of the right index finger and place the left index fingertip into the notch you have formed.

M space, *see* **EM SPACE**



NATIONAL MAPPING DIVISION

(sm, abbr, sm)

Usage: The National Mapping Division is part of the U.S. Geological Survey.
Note: Spiral the "N" right hand fingertips downward onto the back of the "S" left hand. Sign the letter M, then spiral the "D" right hand thumbtip onto the back of the "S" left hand.

NEATLINE

(sm)

Usage: The neatline circumscribes the map area; scribe the neatline .008 in.
Note: Trace the "N" right-hand fingertips forward along the side of the left index finger.

NONEMULSION

(sm, sm)

Usage: The nonemulsion side of the negative.
Note: Throw the thumbtip of the "A" right hand outward from under the chin, then slide the "E" right hand under the "B thumb-in" left palm from left to right.

Note, *see* **BASE CREDIT NOTE, CREDIT NOTE, FOOT NOTE, FOR SALE NOTE, GEOLOGIC CREDIT NOTE, INTERIOR NOTE**

OPAQUE
(dm)

Usage: Opaque the pinholes in the negative; black opaque.
Note: Using a painting motion, sweep the "B thumb-in" right-hand fingertips from top to bottom along the "B thumb-in" left palm

ORCHARD (pattern)
(dm)

Usage: The orchard pattern is in green.
Note: Place the right elbow on the back of the "B thumb-in" left hand and twist the "O" right hand outward then back at the wrist two or three times.

ORDER OF HEADING
(sm, sm)

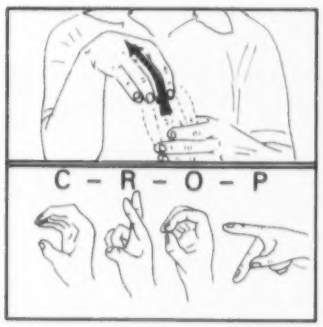
Usage: The first centered heading in a column of text is called the first-order heading; the second centered heading is called the second-order heading, and so forth.
Note: With the right index fingertip near the mouth and the left index in front of the right hand, throw both index fingertips outward. Next touch the "bent B" right-hand fingertips to the right temple and drop them down to the right cheek, then swing the little fingertip outwardly to the right for "ing".

ORIGINALS
(sm)

Usage: The authors' originals; the mill-copy originals.
Note: Jump the "O" right hand upward and outward over the "B thumb-in" left-hand fingertips.

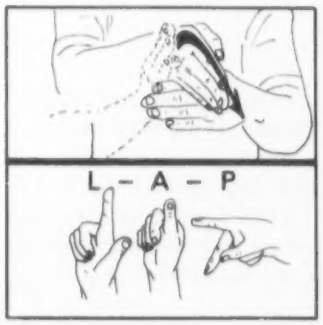
ORTHOPHOTO
(sm)

Usage Orthophoto quad; orthophoto mapping approximates ground conditions.
Note: Place the thumb of the "O" right hand against the right temple, drop the hand downward, changing it to a "P", and place it in the "B thumb-in" left palm.



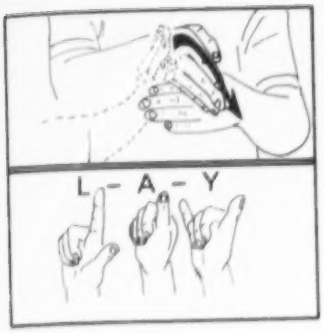
OUTCROP
(sm, fs)

Usage: An outcrop is a geologic formation that appears on the Earth's surface.
Note: Lift the right-hand fingertips out of the "flat C" left-hand fingers, then spell C-R-O-P.



OVERLAP
(sm, fs)

Usage: Overlap the two images; eliminate the type overlap.
Note: Move the "B thumb-in" right hand, palm facing left, up and over the side of the "B thumb-in" left index finger, then spell L-A-P.



OVERLAY

(sm, fs)

Usage: Cronaflex overlay; type overlay.
Note: Move the "B thumb-in" right hand, palm facing left, up and over the side of the "B thumb-in" left index finger, then spell L-A-Y.

OVERPRINT

(sm, sm)

Usage: Do not overprint base type; do not overprint red and black lines.
Note: Move the "B thumb-in" right hand, palm facing left, up and over the side of the "B thumb-in" left index finger, then pinch the "G" right-hand fingertips together into the "B thumb-in" left palm.

OVERTURNED BED

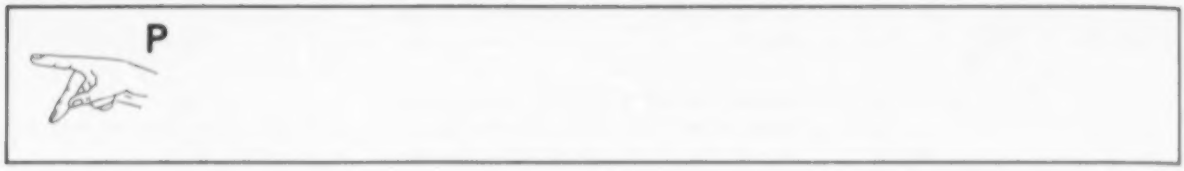
(sm)

Usage: A limb of a fold that is tilted beyond perpendicular is called an overturned bed.
Note: Lay the "bent" right index finger onto the side of the middle knuckle of the left index finger.

OZALID

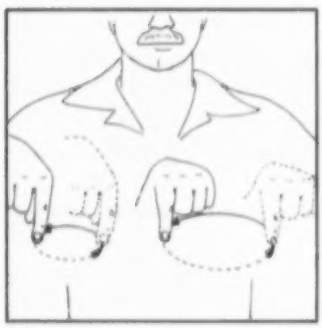
(fs)

Usage: An ozalid is a blue-tone paper print.
Note: Spell O-Z-A-L-I-D.



PAMPHLET
(sm)

Usage: Pamphlet text; put the pamphlet in the map jacket.
Note: Raise the "P" right hand upward along the face of the "B thumb-in" left palm.



PANTOGRAPH
(sm)

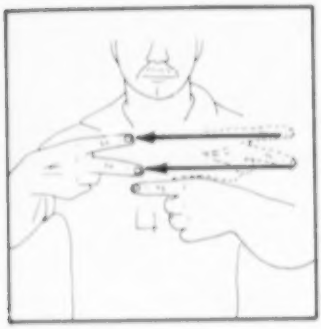
Usage: A linear pantograph; a pantograph is used to change the scale of the mapping on the Kern plotter.
Note: With both index fingertips pointing downward, draw two horizontal circles, one larger than the other.

PARAGRAPH INDENT
(sm)

Usage: Paragraph indent all text information.
Note: Bend the index finger of the "B" left hand toward you and place the right index fingertip on the middle fingertip of the left hand, then drop the right hand downward.

PARALLAX
(dm)

Usage: Remove the parallax in the stereo model; parallax is adjusting the dot images in a stereo model to be one point.
Note: Alternately push the "baby O" left hand outwardly, drawing the "baby O" right hand back toward yourself, then push the right outward and draw the left back, and so forth, two or three times.



PARALLEL
(sm)

Usage: The road is parallel to the stream; parallel contours.
Note: Move the "V" right hand horizontally from left to right above the left index finger.

PARK
(fs)

Usage: Morris Memorial Park; park names are on the black name plate.
Note: Spell P–A–R–K.

PATTERN *see also* MANGROVE, ORCHARD, SAND, SCRUB, SWAMP, VINEYARD
(sm)

Usage: Zip pattern; negative pattern; line pattern; dot pattern; lithologic pattern.
Note: Swirl the middle fingertip of the "P" right hand on the "B thumb-in" left-hand fingertips.

PEEL *see also* STRIP

Usage: Peel an open window on the peelcoat; peel all Qal formations.
Note: Place the "F" right-hand thumbtip into the "B thumb-in" left palm, then twist the hand, at the wrist, outward over the left-hand fingertips.

PEELCOAT
(~, fs)

Usage: Red peelcoat; presensitized peelcoat; strip the peelcoat.
Note: Place the "F" right-hand thumbtip into the "B thumb-in" left palm, then twist the hand, at the wrist, outward over the left fingertips. Next, spell C-O-A-T.

PERENNIAL
(sm)

Usage: Perennial stream.
Note: Place the "P" right hand behind the "P" left hand, then push both hands outward, away from yourself, using a waving motion.

PERMANENT RED
(abbr, dm)

Usage: Print the structure contours in the color permanent red.
Note: Sign "P", then wiggle the right-hand index fingertip up and down in front of the mouth.

PHOTO LAB

(sm, fs)

Usage: The photo lab processes negatives and positives.
Note: Move the "C" right hand from the right side of the face into the "B thumb-in" left palm, then spell L–A–B.

PHOTO ORDER

(sm, sm)

Usage: Fill out the photo order for the photo lab work.
Note: Move the "C" right hand from the right side of the face into the "B thumb-in" left palm. Next, with the right index fingertip near the mouth and the left index finger in front of the right, throw both index fingertips outward, away from yourself.

PHOTOGRAMMETRY

(sm)

Usage: Photogrammetry is the science of obtaining reliable measurements by means of photographs.
Note: Place both horizontal "C" hands about 2 in. apart and draw them back toward your chest, using a horizontal waving motion.

PHOTOREVISION

(sm, sm)

Usage: A photorevision plate; the photorevision was in 1982.
Note: Move the "C" right hand from the right side of the face into the "B thumb-in" left palm. Draw an "X" across the "B thumb-in" left palm with the "R" right-hand fingertips.

PICA
(fs)

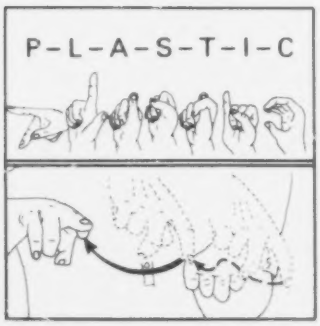
Usage: Pica scale; pica width; one pica wide.
Note: Spell P–I–C–A.

PIT
(sm)

Usage: Sand, gravel, clay, or placer pit.
Note: Form an "X" with both fingers, pushing diagonally downward.

PLANIMETRIC
(abbr)

Usage: A planimetric map omits the topographic contours.
Note: Spell the abbreviation P–L–A–N–I.



PLASTIC SCRIBER
(fs, sm)

Usage: A plastic scriber cuts smooth curved lines.
Note: Spell P–L–A–S–T–I–C, then sweep the "bent 3" right-hand fingertips across the "B thumb-in" left palm in a flat "S" curve, then swinging the right hand outwardly, change it to an "R".

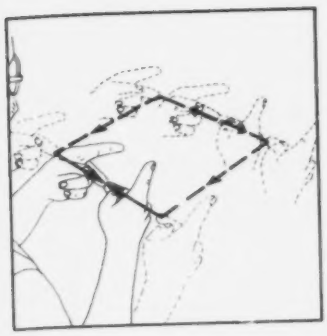


PLATE *see also* CULTURE PLATE, DRAINAGE PLATE

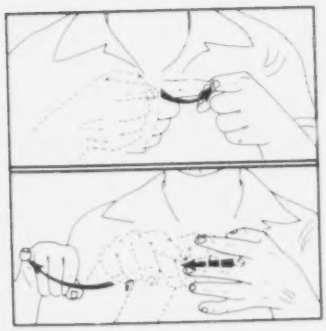
(sm)

Usage: Drainage plate; geologic plate; black plate.
Note: Touch the "P" middle fingertips together, separate them sideways, and draw a horizontal rectangle back toward yourself, again touching the middle fingertips together.

PLUNGE

(sm)

Usage: The plunge of axis of a syncline or anticline.
Note: Form a "V" with both index fingertips near the chest, then push the "V" outward in a downward arc.



POINT-LEADING *see also* LEAD

(sm', sm)

Usage: Twelve-point leading; determine the point-leading needed between the lines.
Note: Touch the right index fingertip to the stationary left index fingertip. Next, trace the right index fingertip forward along the side of the "4" left-hand middle finger. Then, swing the little fingertip outwardly to the right for "ing".

POINT TYPE

(sm, dm)

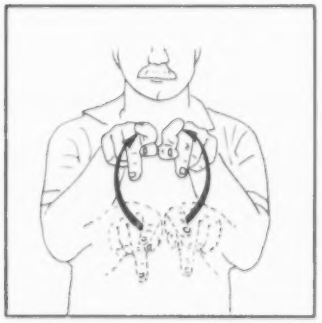
Usage: Use 12-point type; reduce the 8-point type to 75 percent remains.
Note: Touch the right index fingertip to the stationary left index fingertip, then wiggle both "5" hand fingertips up and down in front of yourself as if typing.

POND
(fs)

Usage: Show the pond on the drainage plate in blue.
Note: Spell P-O-N-D.

PRINTING PRESS
(dm, dm)

Usage: A five-color printing press; an offset printing press.
Note: Pinch the "G" right-hand fingertips together into the "B thumb-in" left palm twice. Next mesh the fingers of both "bent 5" hands as if they were gears and shake up and down.

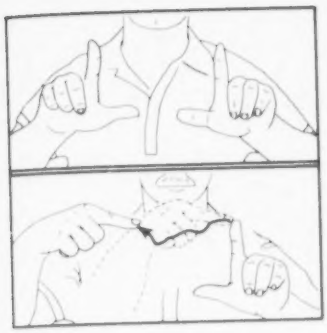


PRIORITY
(sm)

Usage: Priority printing; priority map; priority photo order.
Note: Touch the sides of both "P" thumbs, separate them sideways and, in upward arcs, bring them back together again.

PRODUCTION
(dm)

Usage: A map production group; check the production schedule.
Note: Jump one "P" hand over the other two or more times.



PROFILE

(sm, sm)

Usage: A cross-section profile shows the outline of the surface of the ground.
Note: Place both "L" hand thumbtips 4 in. apart, then with the right index fingertip, draw a wavy line to the side away from the "L" left index fingertip.

PROJECTED CONTACTS

(sm)

Usage: Contacts projected above the cross-section profile are shown by short dashes.
Note: Push the "P" right-hand middle fingertip forward along the side of the left index finger, changing the "P" right hand to a "C".

PROJECTED FAULTS

(sm)

Usage: Faults projected above the cross-section profile are shown by short dashes.
Note: Push the "P" right-hand middle fingertip forward along the side of left index finger, changing the "P" right hand to an "F".

PROJECTION

(sm, sm)

Usage: Map projection; grid projection; Universal Transverse Mercator grid projection.
Note: Drop the "P" right-hand middle fingertip down the fingers of the "B thumb-in" left palm, sign "J" on the back of the left hand, and swing the right hand outwardly, changing it to an "N".

PROSPECT
(sm)

Usage: Prospect pit; the Roberta Morris prospect.
Note: Form an "X" with the index fingers.

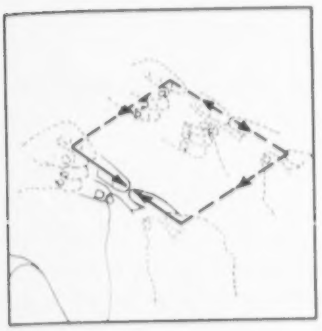
PUBLISH
(dm)

Usage: Publish the map; publish the book.
Note: Pinch the "G" right-hand fingertips together into the "B thumb-in" left palm twice.

Purple, *see* **LEWIS PURPLE**

PUSH CART
(sm)

Usage: The push cart carries map copy to the photo lab.
Note: Push both "S" hands outwardly, away from yourself, as if pushing a cart.

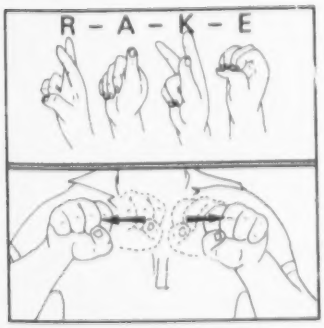


QUADRANGLE
(sm)

Usage: A topographic quadrangle; a 1:24,000 quadrangle.
Note: Touch the "Q" fingertips together, separate them sideways and draw a horizontal rectangle back to your chest, again touching the fingertips.

QUALITY CONTROL
(abbr)

Usage: The quality control section; a quality control inspector.
Note: Spell the abbreviation Q-C.



RAKE SCALE
(fs, sm)

Usage: Rake scales are added to simple figures.
Note: Spell R-A-K-E, then separate both "S" hands sideways.

RANGE (open land)
(sm)

Usage: A range is an open area of land.
Note: With the "R" right-hand fingertips, draw a horizontal circle above the back of the "B thumb-in" left hand.

RANGE (township and range)
(sm)

Usage: A range is a unit of measure east and west of the principal meridian.
Note: Draw a horizontal line with the "R" right hand from left to right away from the left "L" index fingertip.

RANK
(fs)

Usage: A first-rank heading in the description of map units is flush left; a second-rank heading is indented 1 em space.
Note: Spell R-A-N-K.

RAPIDOGRAPH
(abbr)

Usage: A 2-0 rapidograph pen; a rapidograph pen uses black ink.
Note: Sign "R", pause, then spell P-E-N.

Red, *see* **MAGENTA, PERMANENT RED, VERMILION**

RED SCRIBECOAT

(dm, sm, fs)

Usage: Red scribecoat is a clear-film material layered with a red plastic film.
Note: Wiggle the right-hand index fingertip up and down in front of the mouth. Next, sweep the "bent 3" right-hand fingertips across the "B thumb-in" left palm in a flat "S" curve, then spell C–O–A–T.

REDUCE

(sm)

Usage: Reduce the figure thirty percent; reduce the turn-around time.
Note: Lower both "B thumb-in" hands bringing the palms closer together.

REFERENCES

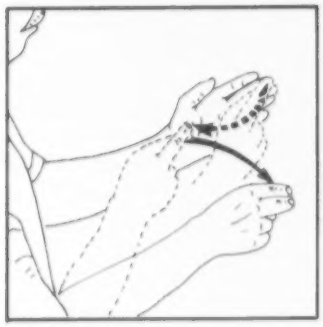
(sm)

Usage: The references come after the text; the references give authors' names and information about their publications.
Note: Drop the "R" right hand down the face of the "B thumb-in" left palm.

REGISTER

(sm)

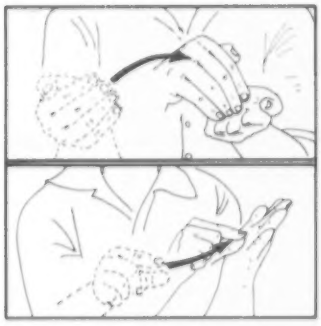
Usage: Register two plates together; register the image.
Note: Place the "R" right-hand fingertips onto the "B thumb-in" left-hand middle fingertip, then jump the right hand back to the heel of the left palm.



REGISTRATION
(sm)

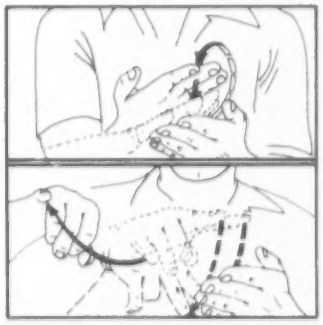
Usage: Color registration; registration pins; registration ticks; punch registration.
Note: Place the "R" right-hand fingertips onto the "B thumb-in" left-hand middle fingertip, then jump the right hand back to the heel of the left palm. Next, swing the right hand outwardly to the side, changing it to an "N".

Registration pins, see **ROUND PINS** or **SLOTTED PINS**



REPRINT
(sm, dm)

Usage: Reprint the map; reprint the image.
Note: Place the fingertips of the "bent B" right hand into the center of the "B thumb-in" left palm. Next, pinch the "G" right-hand fingertips together into the "B thumb-in" left palm twice.



REVERSE READING (left reading)
(sm, sm)

Usage: The reverse-reading side of a negative is the emulsion side.
Note: Touch both "B thumb-in" palms together (fingers are crossing each other, not parallel) and twist the right hand over 180 degrees and place the back of it onto the "B thumb-in" left palm. Next, drop the "V" right fingertips across the "B thumb-in" left palm, then swing the little fingertip outwardly to the side, for "ing".

REVIEW
(sm)

Usage: Review the map; review the text for errors.
Note: With the "R" right-hand fingertips, draw a check mark on the "B thumb-in" left palm.

REVISE, REVISION

(sm)

Usage: Revise the formation names; revise the text.
Note: With the "R" right-hand fingertips, draw an "X" across the "B thumb-in" left palm.

RIGHT READING

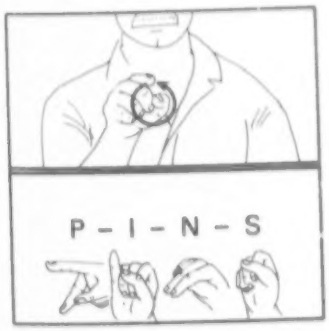
(sm, sm)

Usage: The right-reading side of a positive is the emulsion side.
Note: Point both index fingers outward, then strike the little finger side of the right hand onto the base of the left index finger. Next, drop the "V" right-hand fingertips across the "B thumb-in" left palm, then swing the little fingertip outwardly to the side, for "ing".

ROAD BLADE

(sm)

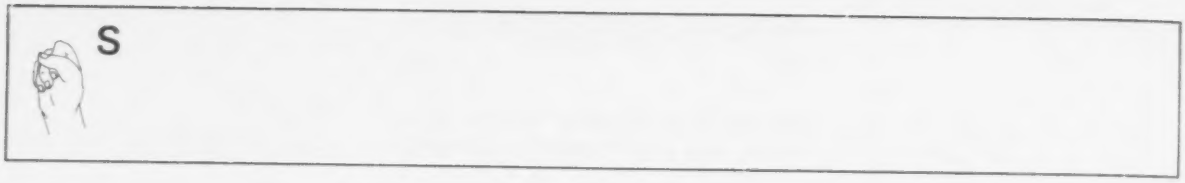
Usage: Scribe the highways and the roads with a road blade.
Note: Trace the "bent V" right-hand fingertips forward along the side of the left index finger.



ROUND PINS (registration pins)

(sm, fs)

Usage: Use round pins to register the two plates together.
Note: Draw a small circle in the air with the right index fingertip, then spell P-I-N-S.

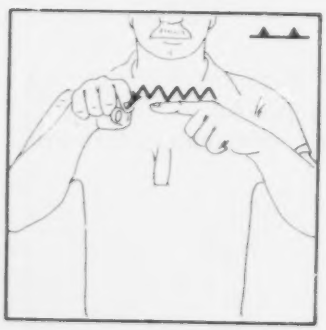


SAND (pattern)
(fs)

Usage: Print the sand pattern in brown.
Note: Spell S–A–N–D.

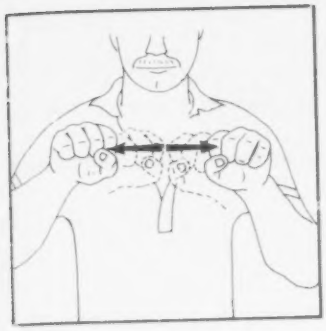
SAPPHIRE NEEDLE
(dm, sm)

Usage: Use the sapphire needle in the plastic scriber.
Note: Wiggle the right-hand index fingertip up and down in front of the mouth, then trace the "bent" right index fingertip forward along the left index finger.



SAWTEETH
(sm)

Usage: Sawteeth are on the upper plate of the thrust fault symbol.
Note: With the right index fingertip, draw a zig-zag line left to right along the top of the left index finger.



SCALE (measuring) *see also* ENGINEER'S SCALE

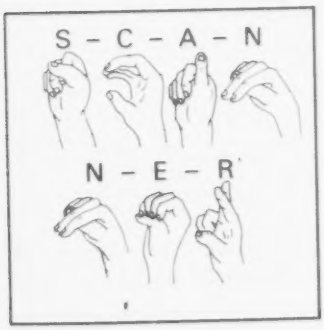
(sm)

Usage: Vertical scale; horizontal scale; scale ticks; engineer scale.
Note: Separate both "S" hands sideways.

SCALE (Photogrammetry)

(dm)

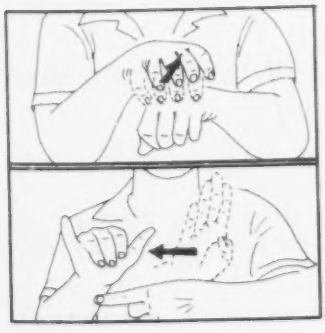
Usage: Scale the stereo model in proportion to the ground image.
Note: With both "B thumb-in" hands about 10 in. apart, move the "B thumb-in" right hand in and out sideways, leaving the left hand stationary.



SCAN, SCANNER

(fs)

Usage: Color scan the map; scan for errors; the Scitex Super Scanner.
Note: Spell S-C-A-N or S-C-A-N-N-E-R.



SCRATCH BOUNDARY

(sm, sm)

Usage: Use a scratch boundary, instead of a contact, between the two formations; scribe the scratch boundary .004 in.
Note: Pull the "bent 5" right-hand fingers over the back of the "S" left hand, then slide the "B" right hand to the right along the left index finger, changing the "B" right hand to a "Y".

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SCREEN
(sm)

Usage: Screen the line pattern 50 percent; a negative tone screen; add the screen to the peelcoats.
Note: Cross the fingers of both "5" hands at about 30 degrees to each other, palm to palm.

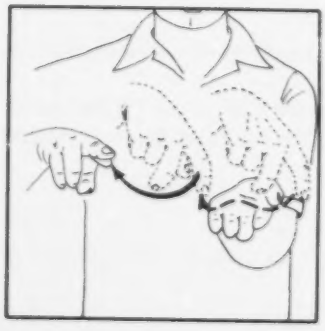
SCRIBE (cutting lines in scribecoat material)
(sm)

Usage: Scribe the contacts .005 in., scribe the structure contours.
Note: Sweep the "bent 3" right-hand fingertips across the "B thumb-in" left palm in a flat "S" curve.

Scribecoat, *see* **RED SCRIBECOAT, YELLOW SCRIBECOAT**

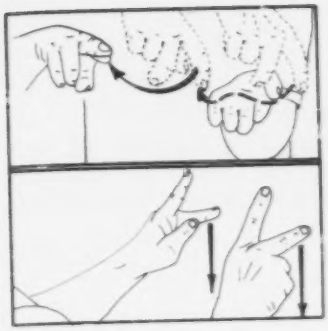
SCRIBE GUIDE
(sm, sm)

Usage: Check the geologic registration against the topo base on the scribe guide; print a scribe guide.
Note: Sweep the "bent 3" right-hand fingertips across the "B thumb-in" left palm in a flat "S" curve, then with the right-hand fingertips, pull the "B" left-hand fingertips from left to right.



SCRIBER (mechanical device) *see also* **PLASTIC SCRIBER, ROAD BLADE, SWIVEL SCRIBER**
(sm, sm)

Usage: A rigid scriber; a steel scriber; a plastic scriber.
Note: Sweep the "bent 3" right-hand fingertips across the "B thumb-in" left palm in a flat "S" curve and swing outwardly to the right, changing the "bent 3" right hand to an "R".



SCRIBER (person)
(sm, sm)

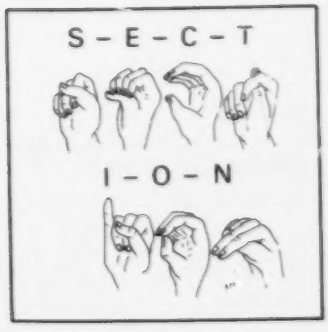
Usage: The person is an excellent scriber.
Note: Sweep the "bent 3" right-hand fingertips across the "B thumb-in" left palm in a flat "S" curve and swing outwardly to the right, changing the "bent 3" right hand to an "R". Then, drop both "P" hands downward.

SCRUB (small trees or shrubbery)
(dm)

Usage: The scrub pattern is shown in green.
Note: Place the wrist of the "S" right hand behind the "B thumb-in" left hand, then twist the right hand sideways at the wrist, right to left, two or three times.

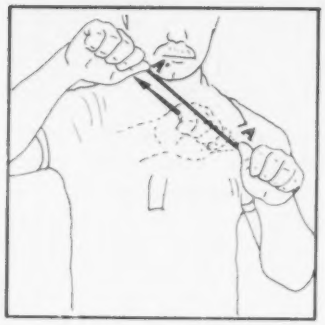
SECTION (township and range)
(abbr)

Usage: Section 36 of township.....; a section is one mile square.
Note: Spell the abbreviation S–E–C.



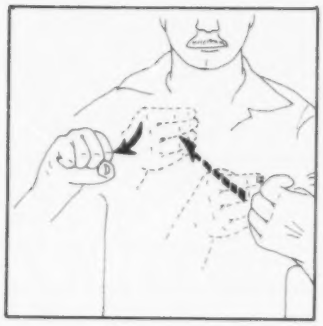
SECTION (work unit)
(fs)

Usage: Thematic mapping section; design and review section; reprints and revisions section.
Note: Spell S–E–C–T–I–O–N.



SECTION LINE
(sm)

Usage: The section line is *A–A'*; scribe the section line .008 in.
Note: Separate both "A" hand thumbtips drawing a line diagonally upward with the right hand only. *A–A'* is used as an example. Sign the appropriate letters for the section line, A for *A–A'*, B for *B–B'*, and so forth, when making this sign.

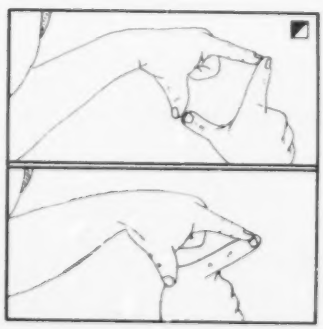


SEPARATES
(sm)

Usage: Map separates; color separates of the topo base.
Note: Separate the knuckles of both "bent B" hands by pulling only the right hand back toward your chest, then swing the right hand outwardly to the right, changing it to an "S".

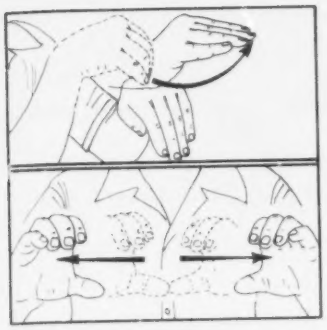
SERIES
(fs)

Usage: A map series; ten maps in this series.
Note: Spell S–E–R–I–E–S.



SHAFT
(sm)

Usage: A mine shaft.
Note: Form a square with the fingertips of both "L" hands, then place the "L" left-hand fingertips along the side of the right index finger.



SHIPPING TUBE

(sm, sm)

Usage: Mail the map in a three-foot-long shipping tube.
Note: Place the fingertips of the "bent B" right hand on the back of the "bent B" left hand and flip the right-hand fingertips outward. Next, touch the thumbs of both "C" hands together, then separate them sideways.

SIDE PANEL

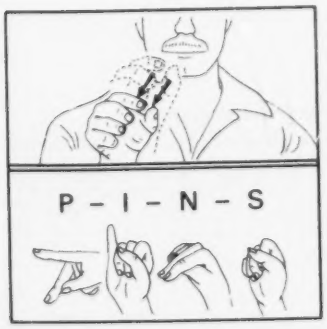
(sm)

Usage: The area to the side of a topographic map is called a side panel.
Note: Drop the "S" right hand downward along the side of the index finger of the palm-out "B" left hand, and change the "S" right hand to a "P".

SIDE TITLE

(sm)

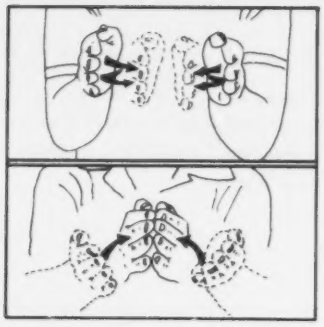
Usage: A figure turned sideways on a page has a side title.
Note: Drop the "T" right hand downward along the side of the little finger of the palm-in "B thumb-in" left hand.



SLOTTED PINS (registration pins)

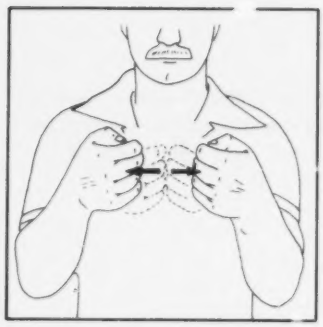
(sm, fs)

Usage: Use the slotted registration pins to register both plates together.
Note: Drop the "G" right hand slightly downward at about a 45 degree angle, then spell P–I–N–S.



SMALL FOLDER
(dm, sm)

Usage: Ship the map in a small folder to keep it flat; the small folder is made from double-ply cardboard.
Note: Push the palms of the "B thumb-in" hands together, almost touching, two or three times, then bring both palms together in small, upward arcs.

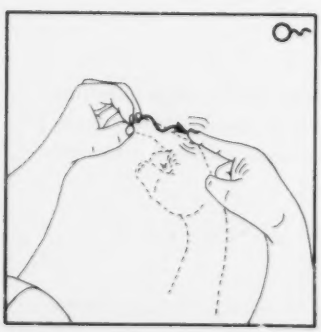


SPACE *see also* EM SPACE, POINT-LEADING
(sm)

Usage: Add more space between lines of type; one-half-inch space; 1 em space.
Note: Separate the knuckles of both bent "B thumb-in" hands slightly.

SPRAY MOUNT
(dm, abbr)

Usage: Spray mount is a sticky spray glue; use spray mount to attach clear film to the type overlay.
Note: With the right index fingertip, push the spray nozzle down on an imaginary aerosol can twice, then sign "M".



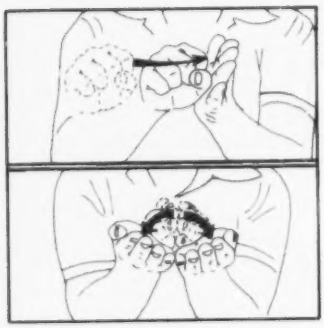
SPRING
(sm)

Usage: Artesian spring; intermittent spring; spring-fed stream.
Note: Place the right index fingertip against the side of the "O" left-hand fingers, then draw the right hand away to the side, wiggling the fingertip as you move away.

STAND OUT

(sm)

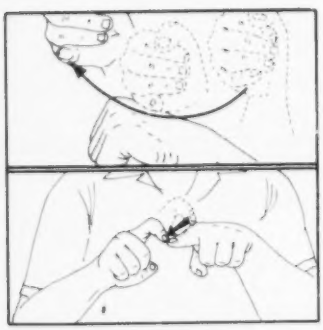
Usage: The geology should stand out from the base; the red will stand out from the yellow.
Note: Place the back of the "B thumb-in" right hand near the "B thumb-in" left palm, then bring the right hand up toward your face, spreading to a "5" hand.



STANDARDS BOOK

(sm, sm)

Usage: Mapping procedures are shown in the cartographic standards book.
Note: Push the thumb side of the "S" right hand into the "B thumb-in" left palm, then touch both "B thumb-in" palms together and fold the hands outward as if opening a book.



STEEL NEEDLE

(dm, sm)

Usage: Use a steel needle in the rigid scriber; grind the steel needle to .005 in.
Note: Move the little finger of the right hand in a downward, then upward arc, lightly brushing the back of the "S" left hand; do two or three times. Next, trace the "bent" right index fingertip forward along the left index finger.

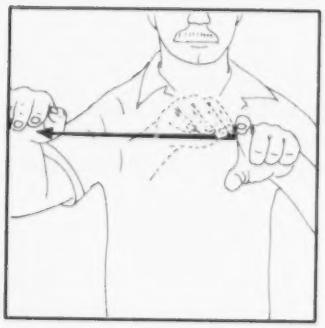
STEREOSCOPIC

(abbr)

Usage: A stereoscopic pair of aerial photographs; a stereoscopic viewer.
Note: Spell the abbreviation S–T–E–R–E–O.

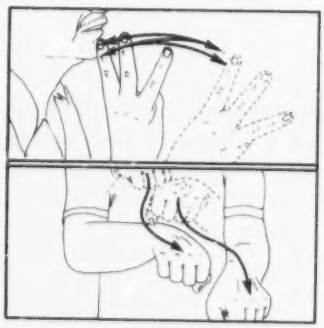
STICKY BACK
(dm, sm)

Usage: Sticky back strip film; sticky back patterns.
Note: Pinch the middle fingertip and the thumbtip together two or three times, then move the back of the "B thumb-in" right hand back toward the right shoulder.



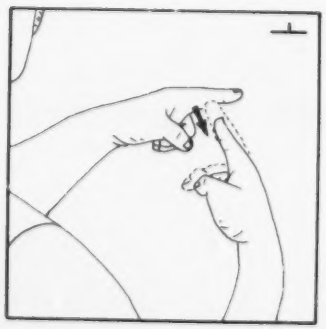
STRAIGHT EDGE (ruler)
(sm)

Usage: Use a straight edge to scribe the border.
Note: Holding onto an imaginary steel straight edge with the "baby C" left hand, draw a straight line from left to right with the "B thumb-in" right-hand fingertips.



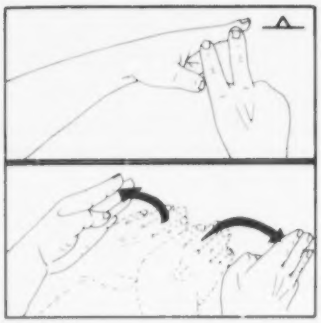
STREAM
(dm, sm)

Usage: A perennial stream; an intermittent stream.
Note: With the index fingertip of the "W" right hand, strike area of the mouth two or more times. Next, place the "S" right hand behind the "S" left and push both forward using a horizontal waving motion.



STRIKE AND DIP OF BEDDING
(sm)

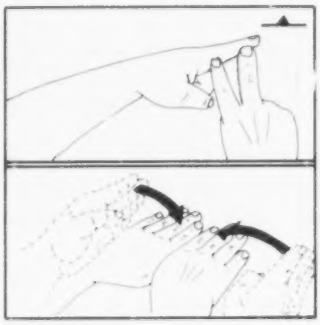
Usage: The angle of dip for the strike and dip of bedding is 25 degrees. 25 degrees is given only as an example.
Note: Draw the right-hand index fingertip about one inch back from the middle of the left index finger.



STRIKE AND DIP OF FOLIATION (open)

(sm, sm)

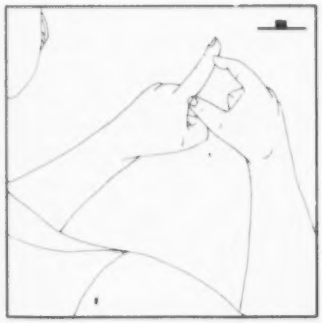
Usage: An open symbol showing strike and dip of foliation.
Note: Place the "V" right-hand fingertips along the side of the left index finger, then touch the sides of the "B" index fingers and separate them sideways in an upward and outward arcs.



STRIKE AND DIP OF FOLIATION (solid)

(sm, sm)

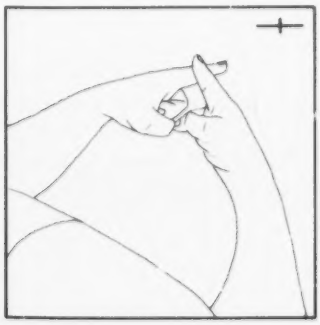
Usage: A solid symbol showing strike and dip of foliation.
Note: Place the "V" right-hand fingertips along the side of the left index finger, then bring the sides of the "B" index fingers together in downward arcs.



STRIKE AND DIP OF JOINTS

(sm)

Usage: A symbol showing strike and dip of joints.
Note: Place the "baby C" right-hand thumb and index fingertips along the side of the left index finger.



STRIKE AND DIP OF VERTICAL BEDDING

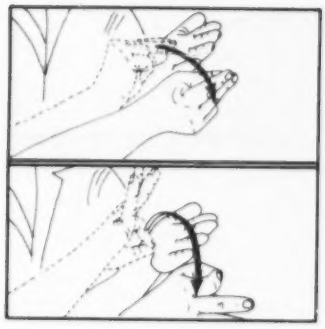
(sm)

Usage: A symbol showing strike and dip of vertical bedding.
Note: Place the right index fingertip across the middle of the horizontal left index finger.

STRIP *see also* PEEL

(sm)

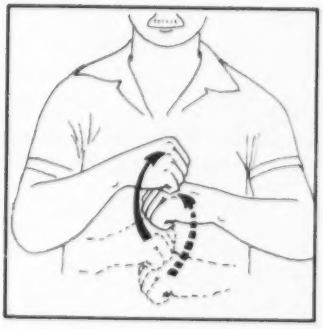
Usage: Cut-and-strip peelcoat; strip the peelcoat.
Note: Place the "pinched 3" right-hand fingertips into the "B thumb-in" left palm, then twist the right hand at the wrist, outward and over the "B thumb-in" left fingertips.



STRIP FILM

(sm, sm)

Usage: Strip film is used for making type; wax is used as an adhesive on strip film.
Note: Place the "pinched 3" right-hand fingertips into the "B thumb-in" left palm, then twist the hand at the wrist, outward and over the left fingertips. Next, sweep the "F" right hand outward along the face of the "B thumb-in" left palm.



STRUCTURE

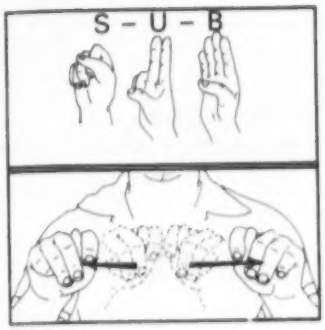
(dm)

Usage: Structure contours; a structure map.
Note: Place the "S" right-hand knuckles on the back of the "S" left hand, then the left-hand knuckles on the back of the right hand, the right on the left, and so forth.

SUBDUE

(sm)

Usage: Subdue the base by screening it 40 percent; subdue the symbols by scribing them small.
Note: Place the back of the "5" right-hand fingers against the downward facing "B thumb-in" left palm, then push the right hand downward, closing to a "B thumb-in" hand.



SUBTITLE

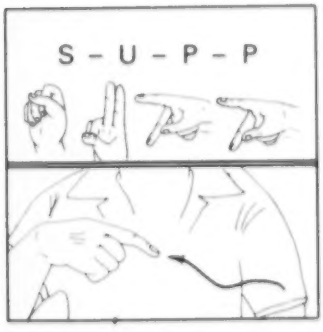
(fs, sm)

Usage: Place the subtitle inside the map; use nine-point type for the subtitle.
Note: Spell S–U–B, then touch the sides of both "T" index fingers together and separate them sideways.

SUPERIOR

(fs)

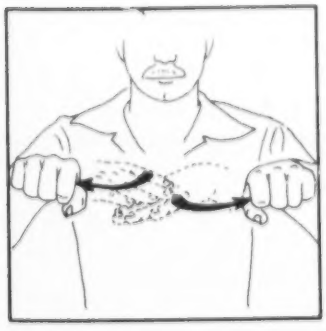
Usage: A superior number; use five-point type for the superior number.
Note: Spell S–U–P–E–R–I–O–R.



SUPPLEMENTAL CONTOUR

(abbr, sm)

Usage: Contour interval 50 feet with 25 foot supplemental contours.
Note: Spell the abbreviation S–U–P–P, then move the palm-down, "1" right hand from left to right with a horizontal waving motion.



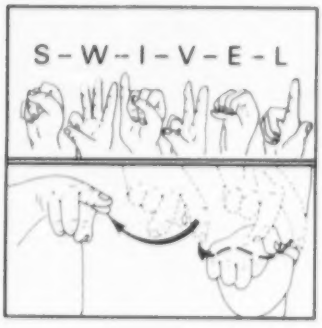
SURFACE, SURFICIAL

(sm)

Usage: Bedrock surface; surface anomaly; surficial deposit; surficial geology.
Note: Place the fingers of the "B thumb-in" right hand across the back of the "B thumb-in" left-hand fingers, then separate them sideways, changing both to "S" hands.

SWAMP (pattern)
(sm)

Usage: Swampland; use the swamp pattern for the Everglades.
Note: Draw a horizontal circle with the "S" right hand over the back of the "B thumb-in" left hand.

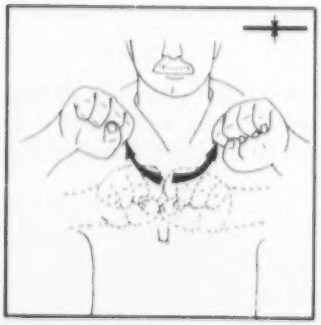


SWIVEL SCRIBER
(fs, sm)

Usage: Use the swivel scriber to scribe roads or structure contours.
Note: Spell S-W-I-V-E-L, then sweep the "bent 3" right-hand fingertips across the "B thumb-in" left palm in a flat "S" curve and swing outwardly, changing the "bent 3" right hand to an "R".

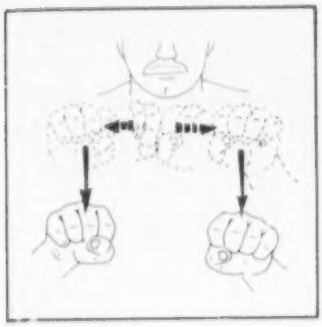
SYMBOL
(fs)

Usage: Structures are shown on the map by a symbol.
Note: Spell S-Y-M-B-O-L.



SYNCLINE
(sm)

Usage: A syncline is a concave-upward fold; the Morris syncline.
Note: Touch the thumbs of both "S" hands together, then separate both hands sideways in upward arcs.

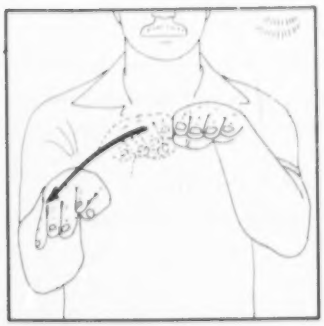


SYSTEM
(sm)

Usage: The Precambrian system; a stratigraphic system.
Note: Touch the thumbs of both "S" hands together, separate them sideways, then downward.

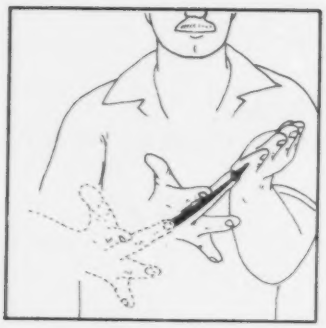
TABLE (listing)
(dm)

Usage: The table lists all drill-hole locations; figure 1 and table 2.
Note: Hop the "T" right hand down the "B thumb-in" left palm.



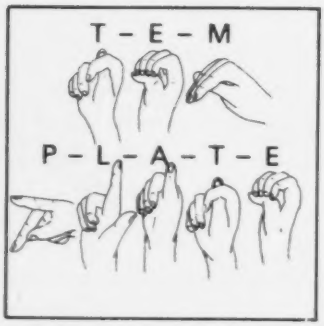
TAILINGS
(sm)

Usage: Tailings pond, tailings dump.
Note: With the sides of both "B" hand index fingers touching, slope the right hand in a downward arc away from the stationary "B" left hand.



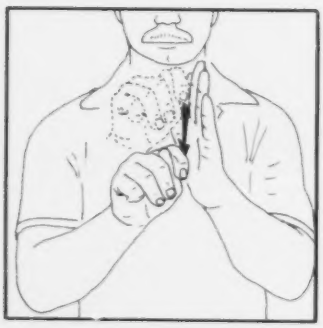
TECHNICAL
(sm)

Usage: A technical draftsperson; technical information; technical book.
Note: Tap the middle fingertip of the "5" right hand against the side of the "B thumb-in" left little finger.



TEMPLATE
(fs)

Usage: A circle template; a green template; a symbol template.
Note: Spell T-E-M-P-L-A-T-E.



TEXT
(sm)

Usage: The text is laid out to the right of the map; the text is four columns long.
Note: Drop the "T" right hand down the face of the "B thumb-in" left palm.

THEMATIC
(sm)

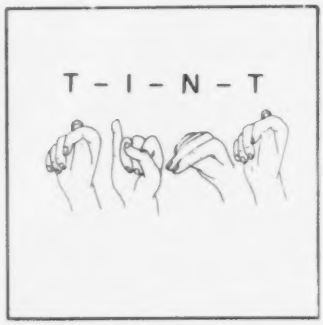
Usage: The Thematic Mapping Unit; a geologic map is a thematic map.
Note: Place the thumbside of the "T" right hand into the "B thumb-in" left palm.

TICK *see also* INDEX TICKS, INTERMEDIATE TICKS

(fs)

Usage: A coordinate tick; a numbered tick; scribe the tick one-tenth of an inch long.
Note: Spell T–I–C–K.

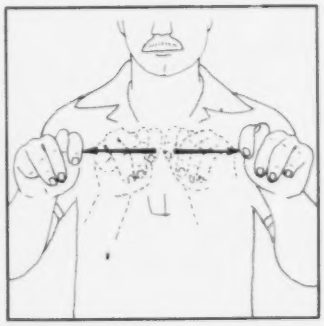
Timber, *see* **WOODS.**



TINT

(fs)

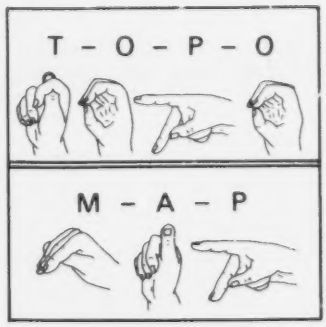
Usage: A blue or red tint; a black tint pattern.
Note: Spell T–I–N–T.



TITLE

(sm)

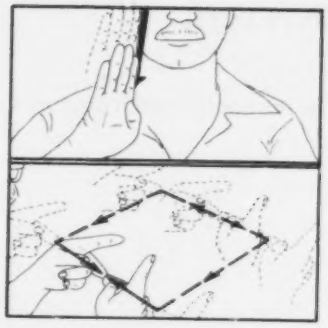
Usage: The title of a map; a figure title; use twenty-four-point type for the title.
Note: Touch the sides of both "T" index fingers together and separate them sideways.



TOPOGRAPHIC MAP

(abbr, fs)

Usage: A topographic map shows physical and manmade features.
Note: Spell the abbreviation T–O–P–O, then spell M–A–P.



TOPOGRAPHY
(–, sm)

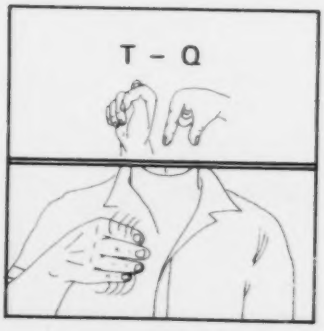
Usage: The topography is printed in brown; the topography is shown on the contour plate.
Note: Stroke the right cheek with the side of the "B" right hand. Next, touch the "P" middle fingertips, separate them sideways, and draw a horizontal rectangle back to your chest, again touching the middle fingertips.

TOWNSHIP (township and range)
(sm)

Usage: A township is a unit of measure north and south of the base line; there are 36 sections in a township.
Note: Drop the "T" right hand downward alongside of the thumbtip of the "L" left hand.

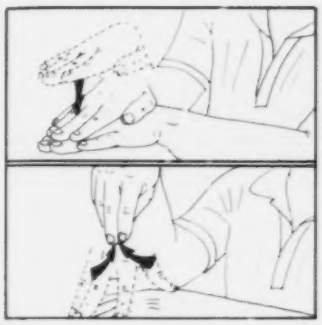
TP5
(abbr)

Usage: TP5 is a photographic paper for making positive prints.
Note: Spell the abbreviation T–P–5.



TQ WATER BLUE
(abbr, dm)

Usage: The color tq water blue; tq water blue will overprint other colors.
Note: Spell the abbreviation T–Q, then shake the "B" right hand sideways in front of yourself.



TRACE
(sm, sm)

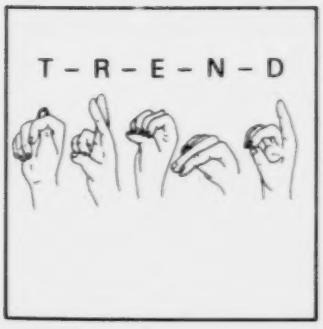
Usage: Trace scribe the contours; trace the image onto the scribecoat.
Note: Lay the "B thumb-in" right-hand palm onto the back of the "B thumb-in" left hand, then spread the right-hand fingertips to a "5" hand and, raising the hand, pinch the fingertips together.

TRAIL
(sm)

Usage: A foot trail, a hiking trail.
Note: Place the "T" right hand behind the "T" left hand and push both forward using a horizontal waving motion.

TRANSMIT
(sm)

Usage: Transmit the report; transmit the map to the printer.
Note: Place the fingertips of the "V" right hand onto the heel of the "B thumb-in" left palm, then jump the right hand out and over the left fingertips.

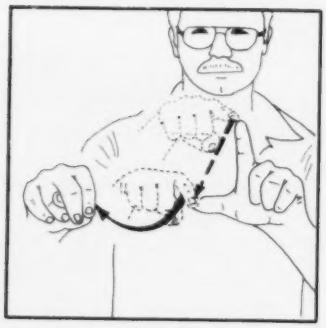


TREND
(fs)

Usage: Bedding trend lines in the cross section; trend lines are scribed .004 in.
Note: Spell T-R-E-N-D.

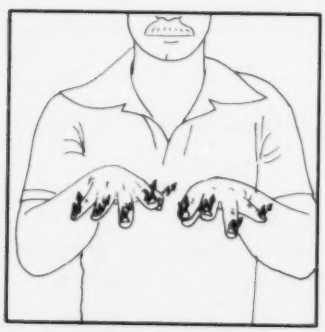
TRIANGLE
(sm)

Usage: A 45-degree triangle; use a triangle to scribe a straight line.
Note: Drop the right index fingertip diagonally from the "L" left index fingertip to the thumbtip.



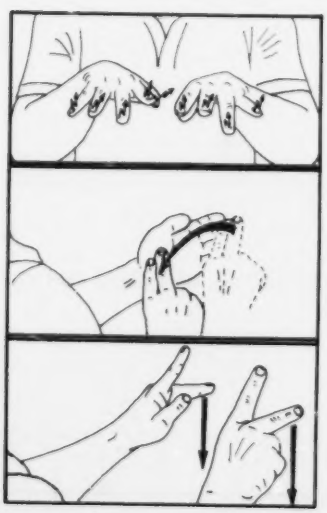
TRIANGULATION
(sm)

Usage: A triangulation point; use triangulation to figure out the distance.
Note: Drop the right index fingertip diagonally from the "L" left index fingertip to the thumbtip, then swing the right hand outwardly, changing it to an "N".



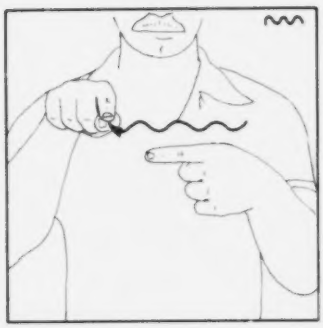
TYPE
(dm)

Usage: Wax-back type; nine-point type; a column of type.
Note: Wiggle both "5" hand fingertips up and down in front of yourself as if typing.



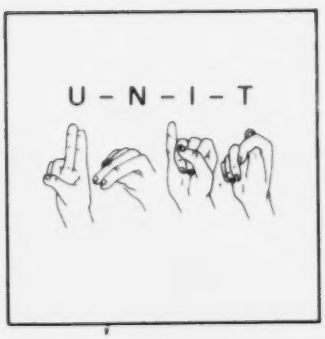
TYPE CONTRACTOR
(dm, sm, sm)

Usage: The type contractor will set the type.
Note: Wiggle both "5" hand fingertips up and down in front of yourself as if typing, then place the "U" right-hand fingertips on the "B thumb-in" left hand middle fingertips and jump them back to the heel of the left-hand palm. Next, drop both "P" hands downward.



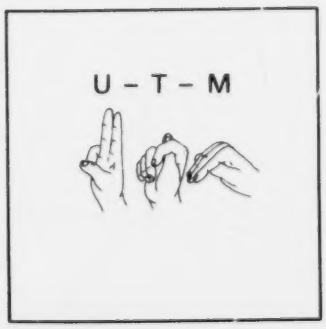
UNCONFORMITY
(sm)

Usage: A substantial break in the geologic record is called an unconformity.
Note: With the right index fingertip, draw a horizontal wavy line in the air above and along the left index finger.



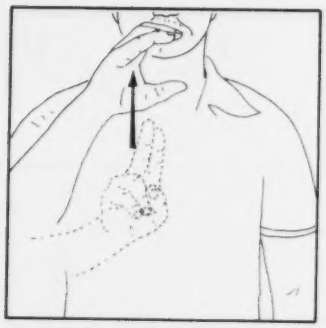
UNIT
(fs)

Usage: The Thematic Mapping Unit; Contracts Unit.
Note: Spell U–N–I–T.



UNIVERSAL TRANSVERSE MERCATOR
(abbr)

Usage: The Universal Transverse Mercator grid system.
Note: Spell the abbreviation U–T–M.

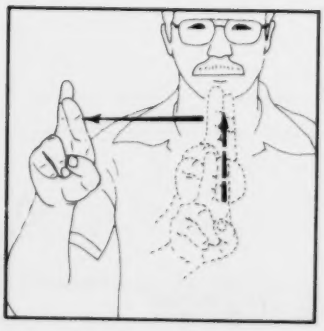


UPPER CASE
(sm)

Usage: Set the title in upper case type; the first letter of the word is upper case.
Note: Move the "U" right hand upward, changing it to a "C".

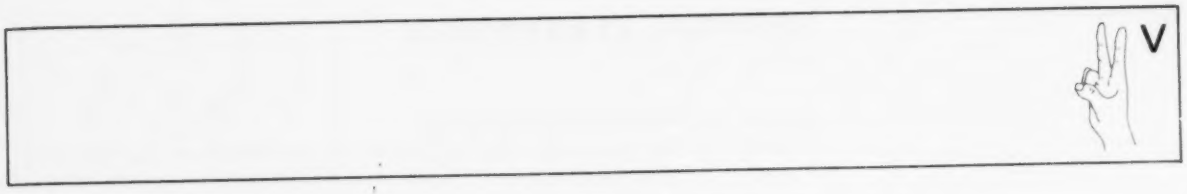
UPPER LEFT
(sm)

Usage: The upper left corner of the map; the upper left heading.
Note: Move the "U" right hand upward, then sliding it to the left, change it to an "L".



UPPER RIGHT
(sm)

Usage: The upper right corner of the map; the upper right heading.
Note: Move the "U" right hand upward, then sliding it to the right, change it to an "R".



VALLEY
(sm)

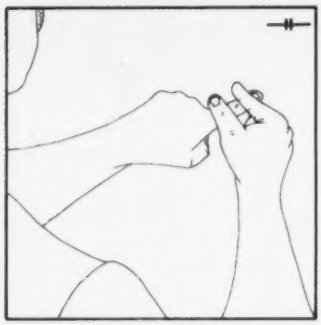
Usage: Grand Teton Valley; a narrow valley.
Note: Drawing an "S" curve, bring the sides of both "V" hand thumbs downward toward each other.

VERMILION
(sm, dm)

Usage: The red color vermillion; vermillion will overprint other colors.
Note: Sign "V", then wiggle the right-hand index fingertip up and down in front of the mouth.

VERTICAL
(sm)

Usage: Vertical bedding; vertical alignment.
Note: Lower the "V" right hand in front of yourself.

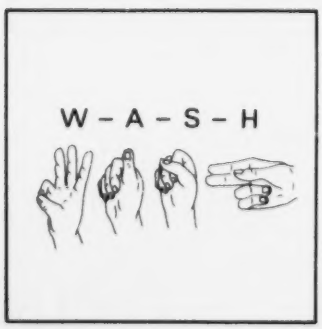


VERTICAL CLEAVAGE
(sm)

Usage: A vertical cleavage symbol.
Note: Place the "G" right-hand fingers across the middle of the left index fingers.

VINEYARD (pattern)
(sm)

Usage: Print the vineyard in green on the map; use a pattern for the vineyard.
Note: Place the wrist of the "V" right hand against the thumb of the "B thumb-in" left hand, then twist the right hand outward at the wrist, changing it to a "Y".



WASH
(fs)

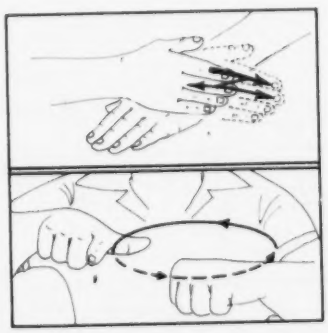
Usage: A normally dry bed of an intermittent stream is called a wash.
Note: Spell W–A–S–H.

WAX BACK
(fs, sm)

Usage: Positive wax-back type; negative wax-back type.
Note: Spell W–A–X, then move the back of the "B thumb-in" right hand back toward the right shoulder.

WIPE ON
(fs, sm)

Usage: A two-color wipe-on yellow scribecoat; a black wipe on.
Note: Spell W–I–P–E, then place the "B thumb-in" right-hand fingertips onto the back of the "S" left hand.

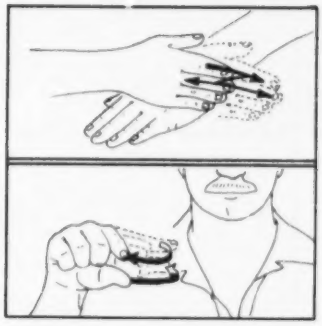


WOODLAND (same as timber, woods)
(dm, sm)

Usage: Woodland is a general term used for all vegetation.
Note: Place the side of the little finger of the "B thumb-out" right hand on the back of the "B thumb-in" left hand and make a sawing motion. Next, with the "L" right hand, draw a horizontal circle above the back of the "S" left hand.

WOODS
(dm)

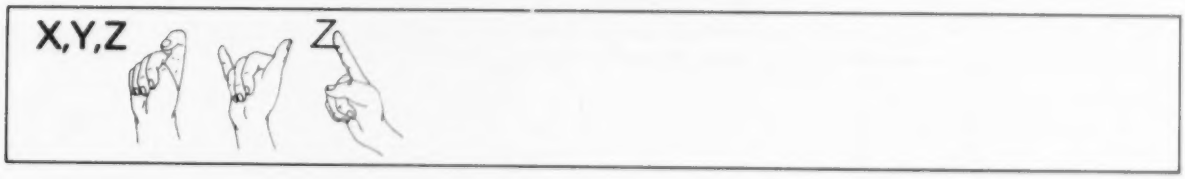
Usage: Areas containing tree cover or brush that is potential tree cover and is over 6 feet tall.
Note: Place the elbow of the "W" right hand on the back of the "B thumb-in" left hand and twist the right hand at the wrist, outward then back toward yourself, two or three times.



WOODS GREEN

(dm, dm)

Usage: The color woods green.
Note: Place the side of the little finger of the "B thumb-out" right hand on the back of the "B thumb-in" left hand and make a sawing motion. Next, shake the "G" right-hand fingers sideways in front of yourself.



YELLOW SCRIBECOAT

(dm, sm)

Usage: Print the geology in black on the yellow scribecoat; yellow scribecoat is transparent.
Note: Shake the "Y" right hand sideways, then changing it to a "bent 3", sweep the right hand across the "B thumb-in" left palm in a flat "S" curve.

BIBLIOGRAPHY

A list of sign reference books and videotapes for technical/specialized vocabulary compiled by Frank Caccamise, Ph.D.

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Coal Investigations Maps are geologic maps on topographic or planimetric bases at various scales showing bedrock or surficial geology, stratigraphy, and structural relations in certain coal-resource areas.

Oil and Gas Investigations Charts show stratigraphic information for certain oil and gas fields and other areas having petroleum potential.

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Hydrologic Investigations Atlases are multicolored or black-and-white maps on topographic or planimetric bases presenting a wide range of geohydrologic data of both regular and irregular areas; principal scale is 1:24,000 and regional studies are at 1:250,000 scale or smaller.

Catalogs

Permanent catalogs, as well as some others, giving comprehensive listings of U.S. Geological Survey publications are available under the conditions indicated below from the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, CO 80225. (See latest Price and Availability List.)

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